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Paper TRADE JOURNAL

REG. U. S. PAT. OFF.

VOLUME 125, No. 25 DECEMBER 18, 194

Season's Greetings

The many warm friendships it has been our pleasure to enjoy, friendships based on years of mutual understanding and confidence, are the strongest part of the closing year's fabric and the foundation of all we hope to enjoy in the coming year. To all our friends, old and new, a very

HAPPY NEW YEAR

GOTTESMAN & COMPANY, Inc.

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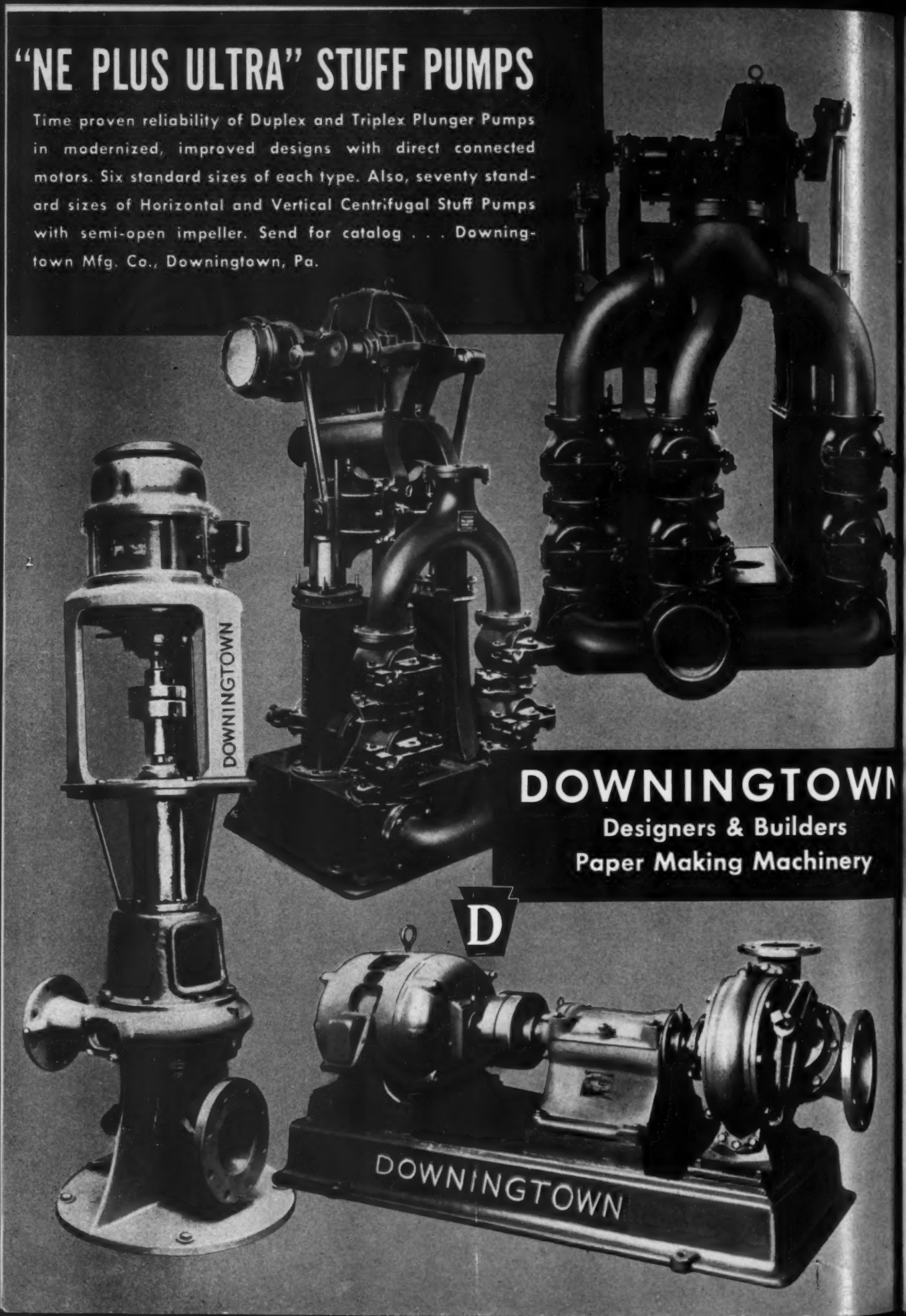
Time proven reliability of Duplex and Triplex Plunger Pumps in modernized, improved designs with direct connected motors. Six standard sizes of each type. Also, seventy standard sizes of Horizontal and Vertical Centrifugal Stuff Pumps with semi-open impeller. Send for catalog . . . Downingtown Mfg. Co., Downingtown, Pa.



DOWNINGTOWN

Designers & Builders
Paper Making Machinery

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Volume 125 — **Number 25**

Paper TRADE JOURNAL

REG. U. S. PAT. OFF.

Executive and Editorial Offices: 15 W. 47th St., New York 19, New York
Published Every Thursday by Lockwood Trade Journal Co., Inc.

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OXFORD TRADING AKTIEBOLAGET
Biblioteksgatan 6-8, Stockholm, Sweden

Subscriptions: (Payable in advance) **By the year, $5.00; Single Copy 15 cents** ***Postage Extra: To Canada, $2.00; To Other Foreign Countries, $3.50.***
Member Audit Bureau of Circulations.

PAPER established Feb. 17, 1899, combined with PAPER TRADE JOURNAL, Nov. 16, 1899. PAPER established Sept. 21, 1910, combined with PAPER TRADE JOURNAL, Feb. 19, 1916.

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PAPER TRADE JOURNAL is entered as Second Class matter at the Post Office at East Stroudsburg, Pa., under Act of Congress of March 3, 1879. Publication Office at Lockwood Trade Journal Co., Inc., 34 N. Crystal St., East Stroudsburg, Pa. Printed in U. S. A.
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PAPER TRADE JOURNAL is indexed in Industrial Arts Index.

CALENDAR OF COMING EVENTS

January 28-30—Technical Section, Canadian Pulp and Paper Association, Annual Meeting, Mount Royal Hotel, Montreal, P. Q.

February 23-26, 1948 — Technical Association of the Pulp and Paper Industry, Annual Meeting, Hotel Commodore, New York City.

May 18-20, 1948—American Pulp and Paper Mill Superintendents Association, Annual Meeting, Roosevelt Hotel, New Orleans, La.

June 11-12, 1948—Paper & Twine Association, Annual Convention, French Lick Springs, Indiana.

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FAREWELL TO TARNISH

(NEWS ITEM: *Disposable paper sheets eliminate much of the inconvenience usually connected with polishing silver.*)

Here is a new, easier way to polish silver—with paper. The new housewife merely wets her silver, rubs lightly over the wet silver with polishing paper, rinses and drys. Presto! she has gleaming silver, minus dirty rags and tired fingers. With disposable silver polishing paper, the cleaning and polishing properties are sealed right in the paper. If your neighborhood store does not carry this new paper product, we will gladly supply manufacturers' names.

Paper clotheslines . . . paper ice bags . . . paper drapes . . . dusting paper . . . new uses for paper calling for new standards of lightness and toughness, new standards of quality in performance. New responsibilities—new opportunities for the Pulp and Paper Industry.

The Puseyjones Organization is now devoting itself completely to the design and construction of Paper-Making Machinery built to new high standards of speed and efficiency, and to the modernization of existing machines.

Among the new machines under construction by Puseyjones are three of the largest and fastest Fourdrinier Machines, one for white paper for bags, one for Kraft liner board, and one for Kraft paper for multi-wall bags; also one Cylinder machine of record size and speed for the manufacture of floor covering felt. Other machines are under construction for the manufacture of M. G. Kraft specialties, facial tissues, and high grade bristols.

Puseyjones Engineers will welcome the opportunity to work with you in solving production problems.

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Paper TRADE JOURNAL

VOL. 125, NO. 25 REG. U.S. PAT. OFF. DECEMBER 18, 1947

Canada to Consider Price Increases

TORONTO, Ont.—With some companies still holding back on the proposal to increase the price on newsprint, the question arises as to whether or not this may mean that for the first time newsprint ranks are split on pricing policies. Recent announcements by Abitibi Power and Paper Company and International Paper Sales that their contract prices for newsprint would be increased by $6 a ton commencing January 1, was not wholly unexpected. Indeed, many publishers were expecting a higher boost. Up to early this week these two companies were the only two to make a definite price increase. Consolidated Paper has stated that it will probably raise its prices substantially next March.

However, those interested in the newsprint business feel that it is quite unlikely that a two-price structure will long be maintained. Most Canadian newsprint is supplied on a contract basis, and U. S. publishers who are contracted to a manufacturer selling at the higher price are likely to question the disparity. At the same time, a price differential between companies is not unreasonable, newsprint men point out, since operating costs of all companies are not the same, particularly

(Continued on page 16)

Newton to Rebuild No. 3 Machine

HOLYOKE, Mass.—The Newton Paper Company, is embarking on a machine-building program that will cost at least $100,000, and will bring that plant to a peak of efficiency not exceeded by any in the specialty board paper field.

James N. Logan, treasurer and general manager of the Newton, reports that the contract has been let to the Downingtown Manufacturing Company, of Downingtown, Pa., to rebuild its present No. 3 machine. The machine will be lengthened 27 feet, a job that will require a building addition. The present daily tonnage of that machine is 30 tons, and after the rebuilding, the 67-inch machine will be able to make 39 tons a day.

Delivery of the new equipment will be made next June and the installation will be done in July. By August, 1948, the machine will be in operation.

Improvements on Newton's No. 2 machine are about finished. They will enable an increase in output from 22½ tons a day to 30 tons daily.

Congress Opens Bids on Paper For GPO First Quarter Needs

WASHINGTON — The Joint Congressional Committee on Monday of this week opened bids on paper proffered to meet requirements of the Government Printing Office for the first quarter of 1948. The specifications that had been advertised for earlier in the month, and the bids as submitted, are listed below.

Newsprint

No. 1—1,700,000 lbs., 24x36—64; rolls, 19, 24, 36, and 48 ins. wide (3-inch fiber cores).

Machine-Finish Book

No. 3—80,000 lbs., 25x38—70; flat, cut any size, min. 21 ins., max. 48 ins.
Paper Corp. of America ..... .169c

No. 4—400,000 lbs., 25x38—70; flat, cut 24x38, 28x38, 38x48 ins.
Paper Corp. of America ..... .169c

No. 5—400,000 lbs., 25x38—70; flat, cut 24x38, 28x38, and 38x48 ins.
Paper Corp. of America ..... .169c

No. 6—200,000 lbs., 25x38—70; rolls, 28½ ins. wide, (3-inch fiber cores).
Mead Sales Co. ..... .1083c
Paper Corp. of America ..... .159c

No. 7—200,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch fiber cores).
Mead Sales Co. ..... .1083c
Paper Corp. of America ..... .159c
Paper Corp. of U. S. ..... .1178c

No. 8—200,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch fiber cores).
Mead Sales Co. ..... .1083c
Paper Corp. of America ..... .159c
Paper Corp. of U. S. ..... .1178c

No. 9—400,000 lbs., 25x38—70; rolls, 24, 36, and 48 ins. wide (3-inch fiber cores).
Mead Sales Co. ..... .1083c
Paper Corp. of America ..... .159c

English-Finish Book

No. 10—40,000 lbs., 25x38—90; flat, cut any size, min. width 24 ins., max. width 48 ins.
Paper Corp. of America ..... .162c
Marquette Paper Corp. ..... .1435c

Offset Book

No. 19—200,000 lbs., 25x38—80; flat, cut any size, min. width 24 ins., max. width 48 ins., the grain to run lengthwise of the sheet.
Central Ohio Paper Co. (100,000 pounds only—lot 19 or 20) ..... .1325c
Paper Corp. of America ..... .162c
Paper Corp. of U. S. ..... .146c

No. 20—1,000,000 lbs., 25x38—100; flat, cut any size, min. width 24 ins. max. width 48 ins., the grain to run lengthwise of the sheet.

(Continued on page 26)

Midwest Optimistic As Year Nears Close

CHICAGO—While the general midwestern paper trade assumed a more optimistic attitude as the year drew to a close, there were still indications locally that 1948 would continue to be a "tough" year from the standpoint of balance between supply and demand. It was freely expected that prices would go higher due to the over-all business picture, and the generally inflationary aspects of the Marshall Plan, the "next round of wages," higher taxes, et cetera. However, some sources in the Chicago area expected supply to be heavy enough in a number of grades to supply good competition and, in some quarters, there continued to be a belief that the industry itself would keep prices down to the lowest possible minimum "both to counteract infla-

(Continued on page 28)

Rayonier Advances Two Vice-Presidents

NEW YORK—William S. Lucey, vice-president in charge of plant operations of Rayonier Incorporated, has been elected executive vice-president. Mr. Lucey also is a Director and member of the Executive Committee.

Martin N. Deggeller, vice-president in charge of Rayonier's timber operations, has been elected a director and member of the Executive Committee.

Container Corporation Builds at Fernandina

In its description of the impressive modernization and expansion program that Container Corporation of America has under way at its mill in Fernandina, Fla., the PAPER TRADE JOURNAL in error used an incorrect heading for the story of the project. The illustrations and the text correctly identify the program as that of the Container Corporation of America.

Foresters Elect Clyde S. Martin

WASHINGTON, D. C.—Clyde S. Martin, Tacoma, nationally known industrial forester, has been elected president of the Society of American Foresters by mail ballot of members, the first time in the history of the 48-year-old organization that a forester in the field of private industry has been selected as its head. He succeeds Prof. Shirley W. Allen, School of Forestry and Conservation, Ann Arbor, Michigan.

Mr. Martin, a native of Pennsylvania, has been chief forester of the Weyerhaeuser Timber Company since 1939. It was under his direction that this company established the Clemons tree farm in 1941, which was the beginning of the national "tree farm" movement.

He is a graduate of DePauw University and earned his master's degree in forestry at Yale in 1907. From 1907 to 1920 he did cruising and forest engineering for the Weyerhaeuser Timber Company. From 1920 to 1930, he was consulting forest engineer for India and later chief forest engineer for the government of Madras. He was in the sawmill business in Oregon from 1930 to 1933 and became chief forester for the Western Pine Association, Portand, in 1934.

Lehmkuhl Joins Masonite As Assistant V-P

CHICAGO—William M. Lehmkuhl has been appointed assistant vice-president of Masonite Corporation by Eugene Holland, president.

Mr. Lahmkuhl was manufacturing manager of the Flintkote Company with headquarters at East Rutherford, N. J. He had been employed by that company for 17 years. He holds a bachelor of science degree in chemical engineering and did post-graduate work at Polytechnic Institute of Brooklyn.

Mr. Holland said Mr. Lehmkuhl's duties with Masonite will be in the production division and that he will be stationed in the company's general offices in Chicago. Masonite is a large producer of pressed wood fiber hardboards, with its principal manufacturing plant at Laurel, Miss.

Scott Names Stevens Director of Purchases

CHESTER, Pa.—L. Carl Stevens has been made director of purchases, of Scott Paper Company, to act in a staff capacity to all plants of the company in the purchasing of basic items, including pulp, cases, wrappers, fuel, heavy chemicals and other vital supplies. Victor G. Sandham has been appointed purchasing agent for the Chester plant of the company.

Albert Ernest Joins Florida Pulp & Paper

NEW YORK—James H. Allen, president of the Florida Pulp & Paper Company, wholly-owned subsidiary of St. Regis Paper Company, this week reported that Albert Ernest has joined the company in an executive capacity. He will be in charge of land acquisition and timber production along the Atlantic seaboard.

Mr. Ernest, formerly president of the Dixie Wood Company, and prior to that manager of the Woodlands Division of Union Bag & Paper Corporation, has been a leader in southern forest management for more than a quarter of a century.

A major responsibility of Mr. Ernest, according to Mr. Allen, will be the production development of the Superior Pine Products Company timber holdings in Georgia, which the company recently acquired the right to manage and utilize. Mr. Ernest will maintain an office for the company at Savannah.

Duncanson to Relinquish F. N. Burt Management

BUFFALO, N. Y.—A revision in the management setup of the F. N. Burt Company Inc., which operates plants at 500-540 Seneca St. and 1298 Main St., has been made public. Thomas S. Duncanson, vice-president and general manager, will relinquish the active management of the local company December 31, to devote his entire time to executive duties with Moore Corporation Ltd., parent company of F. N. Burt. Mr. Duncanson also is vice-president of the Moore Corporation. His headquarters will be in Toronto. He also will continue as vice-president of F. N. Burt.

William C. Milsom has been appointed general manager of F. N. Burt, succeeding Mr. Duncanson. Raymond J. Lowe was promoted to assistant general manager.

Mark Finch Addresses Foremen's Gathering

HOLYOKE, Mass.—Mark L. Finch, recently appointed manager of the greeting card department of White & Wyckoff Manufacturing Company, was the principal speaker at the season's first dinner meeting of the Foremen's Club of White & Wyckoff, held recently at Hotel Roger Smith. Mr. Finch joined the company in October after 27 years with the Norcross Greeting Card Company of New York.

The speaker traced the history and development of greeting cards, asserting that the need for communication has brought about a tremendous increase in the use of greeting cards.

Other speakers included Edward P. White, treasurer, who reported on the percentages of gains and losses in production during the last ten months, and William Daunheimer, club president.

Norton's Higgins Wins Swedish Decoration

WORCESTER, Mass. — Surprise bestowal of a high Swedish royal decoration upon Aldus C. Higgins, chairman of the executive committee of Norton Company, highlighted the company's recent annual service awards dinner in Worcester Auditorium.

On the eve of his 75th birthday, Mr. Higgins was made a chevalier of the Order of Vasa, First Class. The honor was bestowed by Lennart Nylander, Swedish consul-general in the United States, on behalf of King Gustav V.

The decoration was awarded in recognition of Mr. Higgins' long interest in Swedish industry and art.

As birthday gifts, the Norton official also received an engraved silver cigaretter box, and a leather-bound book containing the good wishes and signatures of 5,500 Norton employes here.

The presentations to Mr. Higgins were the highlights of the annual dinner which saw a total of 335 men and women employees honored for continuous service with the company ranging from 10 to 35 years. Twenty-nine men received gold watches for 35 years' service; 53 men and four women received gold medals for being on the payroll 25 years; silver buttons and certificates went to 45 men for 15 years' service, and bronze buttons and certificates for 10 years' service went to 189 men and 15 women.

Presentations were made by George N. Jeppson, chairman of the board of directors; Mr. Higgins; Andrew B. Holmstrom, vice-president and general manager of the abrasive division, and Frank W. Smith, vice-president and manager of the machine division.

Mando Appoints King to Supervise Employe Training

MINNEAPOLIS—The appointment of Carl H. King as Supervisor of Employe Training for the Minnesota and Ontario Paper Company was reported last week by G. N. Williams, Director of Industrial Relations. Mr. King will develop conference and training programs at each of the Company's three operating mills, International Falls, Minn., and Fort Frances and Kenora, Ont. These programs will be developed in cooperation and with the assistance of the supervisory staffs of the various mills.

Mr. King, previous to this appointment had been state director of vocational education and training for the state of Illinois. During the war years, Mr. King was supervisor of industrial training for the Douglas Aircraft Corporation, Chicago plant.

Graduating from James Milliken University at Decatur, Ill., with a degree in Industrial Education, Mr. King continued his education at Iowa State College, Ames, where he received his master's degree in industrial and vocational education.

Paper Makers Argue Federal Power Plan

HOLYOKE, Mass.—The Municipal Gas and Electric Commission is currently striving to have the Federal Government take over all the power facilities generated here on the Connecticut River—but the manufacturers of Holyoke, most of them paper manufacturers, who work and live here as a result of the extensive canal system, have called upon the municipal commission to drop at once its ambitious plan.

The center of a vigorous storm of controversy since it was first suggested by the Commission, the federalization of the water system by eminent domain has aroused a storm of protest among the paper manufacturers in the city, whose action resulted in a fiery public hearing on the subject.

They say that as far as the paper mills in Holyoke are concerned, it would change the entire method of production, would stall any plant investment and improvement programs during the years of litigation that loom ahead, and would cause industry in Holyoke to wither.

Among spokesmen of the manufacturers are James N. Logan of the Newton Paper Company, Elmer C. Tucker of the Chemical and Crocker-McElwain mills, and Edward C. Reid of the American Writing Paper Corporation.

They say that the canal system is the heart of the Holyoke industrial system, and this will be imperilled by the federalization plan advanced by Francis H. King, manager of the municipal commission. Water is necessary for process work and for power generation. These two are tied together inextricably.

The Chemical Paper Manufacturing Company alone consumes more water in a day than the entire Holyoke Water Department system could furnish it, so it is necessary that the mills have this canal water of the flow of power generation intensity. The G & E plan would not utilize the canals for power, manufacturers state.

There are many other factors in the case, including the loss of some $4,000,000 in taxable property for Holyoke. It is estimated that the mill power rights are assessed by the city for some $2,000,000. To this can be added at least as much in implementing equipment such as penstocks and water wheels.

Not only would these properties be taken from the tax rolls, but they would be taken from the mills without any financial compensation. The plan, as outlined in the federal and state petitions which the Gas and Electric Department has filed in preparation for the move to take over the water power business, does not provide for any such payments.

The manufacturers on the canal system who have organized this opposition to the G & E plan are: American Writing Paper Corporation, Chemical Paper Manufacturing Company, Crocker-McElwain Company, Newton Paper Company, Parsons Paper Company, Valley Paper Company, Marvellum Paper Company, and Stevens Paper Company.

In order to develop the power potential in this area for eventual control by the Federal Government, the G & E Department first sought state permission to let Holyoke run all of the power rights on the Connecticut from Holyoke down to Enfield, Conn., as the first step toward handing it over to the government.

However, the Commission has blocked King's move in that the bill in the State Legislature which would authorize such action on the part of the city will be withdrawn by order of Mayor Henry J. Toepfert, who declared he is opposed to the proposed development. This action followed his veto of an aldermanic order endorsing such a petition.

Hammermill Presents Christmas Bonus Checks

ERIE, Pa. — Nearly two thousand Erie men and women employed at Hammermill Paper Company will receive $40 gift checks this year. All permanent employes, plus summer workers at Hammermill dock, will be presented their $40 gift checks before Christmas. A few temporary workers, with less than three months of service, will receive $10 checks.

The Hammermill plant presented a similar gift to workers last Christmas. Announcement of the 1947 Christmas check was made by Norman W. Wilson, Hammermill's president.

November Newsprint Output Hits Record

NEW YORK — Newsprint in Canada during November 1947 amounted to 364,483 tons and shipments to 393,169 tons, according to the News Print Service Bureau. Production in the United States was 66,475 tons and shipments were 66,439 tons. The output in Newfoundland was 30,490 tons and shipments were 28,932 tons making a total North American production of 461,448 tons and shipments of 488,540 tons, compared with continental production of 459,932 tons and shipments of 488,745 tons in November 1946. North American production in November 1947 was greater than in any previous November on record.

The Canadian mills produced 276,423 tons more in the first eleven months of 1947 than in the first eleven months of 1946, which was an increase of 7.3 percent. The output in the United States was 50,872 tons or 7.2 percent more than in the first eleven months of 1946; in Newfoundland production was 8,186 tons or 2.4 percent more, making a total increase of 335,481 tons, or 6.9 percent more than in the first eleven months of 1946, and also was higher than in any preceding similar period.

Stocks of newsprint paper at the end of November were 45,624 tons at Canadian mills, 11,141 tons at United States mills, and 62,729 tons at Newfoundland mills, making a combined total of 119,494 tons compared with 146,586 tons on October 31, 1947, and 174,762 tons at the end of November 1946.

ATLANTA BOWLERS WIN NEPCO TOURNEY

The men who placed first in the annual Nepco Sales Conference Bowling Tournament held at the Paper Inn alleys at Port Edwards, Wis., from left to right, John E. Alexander, Karl F. Schmidt, Captain Ward Rosebush, Truman A. Pascoe, Carl A. Schiebler and J. K. Vanatta.

FINANCE

Dryden's Net Rises By 140 Per Cent

TORONTO — Dryden Paper Company net profit for the fiscal year ended September 30 last showed growth of 140 percent over the previous period, according to the annual statement, the total being shown as $396,214 or $2.64 a share, against $164,833, or $1.10 a share. Net working capital of $1,315,-173 is indicated, well up from $1,121,-915 one year ago. Current assets are given as $2,085,516 and current liabilities at $770,343. Earned surplus was up 70 percent at $731,358.

The company's improved earnings position was due in part to reduced production costs brought about by modernization and increased capacity of the company's pulp mill, together with a better price for pulp exported to the U.S., F. A. Sabbaton, president, said. The betterment was shown despite an increase of approximately 25 percent in labor costs.

The company's new paper machine has not yet gone into production, but Mr. Sabbaton reports that installation is proceeding satisfactorily.

River Raisin Votes Extra

MONROE, Mich. — Regular dividend of ten cents a share and an extra dividend of ten cents a share on the common stock of the River Raisin Paper Company will be paid December 20.

Eagle A Clears Up Bonded Indebtedness

HOLYOKE, Mass. — The American Writing Paper Corp., reports that it will be free and clear of bonded indebtedness on January 1, when it redeems $505,550 of bonds. This is the last bond lien on the local paper mill company's property.

When Eagle A was reorganized in 1937, a bond issue of $3 million was floated and fully subscribed to. A start was made four years ago on redeeming these first mortgage bonds, and by January 1, 1948, all will be cleared off.

Recently, American Writing Paper paid a 25-cent-a-share dividend on its common stock, the first such dividend since its reorganization in 1937 and the first dividend on any AWP common stock in 40 years.

United Wallpaper Votes Fifty Cents a Share

CHICAGO—Directors of United Wallpaper, Inc., have declared a regular quarterly dividend of 50 cents per share on the 38,610 shares outstanding of the 4 per cent cumulative convertible preferred stock, it was announced by William H. Yates, president. The dividend is payable January 15, to stock of record at the close of business January 2.

Outstanding shares of the 4 per cent cumulative convertible preferred stock will be reduced from 40,000 to 38,610 by the redemption on December 15 of 1,390 shares, Mr. Yates stated.

Package Machinery Distributes Bonus

SPRINGFIELD, Mass.—Employes of the Package Machinery Co., of East Longmeadow, have received a wage dividend in the form of a Christmas bonus, according to Roe S. Clark, vice-president and treasurer of the company. Approximately $17,000 was distributed to employes in the form of this bonus, Mr. Clark said.

Under the company's wage-sharing plan, which has been in effect for the past ten years, the wage dividends are paid to employes each time the company declares a dividend to stockholders in excess of 25 cents per share. On December 1st, the company declared its 117th consecutive quarterly dividend in the amount of 40 cents per share, thereby automatically giving all employes an extra Christmas bonus.

The amount each employe receives is based on three per cent of his earnings for the past three months up to $750.

Commenting on the wage dividends, Mr. Clark said: "We are delighted to pay another dividend which, in a sense, is produced by the productivity of our people. They enjoy working under this system which was started in 1937, because it enables them all to repeatedly share with the stockholders in the profits of the company."

Stevens Staff Gets Bonus

WESTFIELD, Mass.—Three hundred employes in the Westfield and South Hadley plants of the Stevens Paper Company, will receive Christmas bonuses of five per cent of their annual wages, according to Raymond West, general superintendent.

FINANCIAL RECORD OF THE WEEK

New York Stock Exchange

High, Low and Last for Week Ending December 13, 1947

STOCKS

	High	Low	Last
A. P. W.	4¾	4½	4½
Armstrong Cork Co.	48¾	47	48¾
Armstrong Cork Co., pf.	94¾	93½	94⅛
Celotex Corp.	27	25¾	27
Celotex Corp., pf.	20½	20⅛	20⅛
Certain-Teed Products Corp.	17¾	16½	17⅛
Certain-Teed Products Corp., pf.	....	....	....
Champion Paper & Fibre Co.	22	21⅜	21¾
Champion Paper & Fibre Co., pf.	104½	104	104½
Congoleum Nairn Co.	31	30½	31
Container Corp. of America	43	40	43
Container Corp. of America, pf.	96	95	95
Crown Zellerbach Co.	33½	32	33½
Crown Zellerbach Co., pf. 4.20	102¼	100	100¾
Crown Zellerbach Co., 4 pf. 4	125	120	125
Dixie Cup Co.	34	33	33¾
Dixie Cup Co., A	54	54	54
Flintkote Co.	35½	34¼	35½
Flintkote Co., pf.	99¾	99	99
Robert Gair	9⅛	8½	9
Robert Gair, pf.	19¾	19¾	19¾
International Paper Co.	55	52¾	55
International Paper Co., pf.	94½	94½	94½
Johns-Manville Corp.	40½	39¼	40⅛
Johns-Manville Corp., pf.	110	108¾	109½
Kimberly-Clark Corp.	23⅝	23	23
Kimberly-Clark Corp., pf.	104¼	104	104¼
Mac Andrews & Forbes	40	39	40
Mac Andrews & Forbes, pf.	135	134	134
Marathon Corp.	21	20½	20½
Mead Corp.	20⅝	19½	19½
Mead Corp., pf. 4¼	93¾	92¼	93¼
Mead Corp., pf. 2	44	43¼	44
National Container Corp.	13⅞	13½	13⅝
Paraffine Companies, Inc.	72½	72¼	72½
Paraffine Companies, Inc., pf.	101	100¼	100¼
Rayonier, Inc.	30⅛	29⅜	29⅞
Rayonier, Inc., pf.	35⅜	35	35⅜
Ruberoid Co.	60⅜	59	60
St. Regis Paper Co.	10	9⅝	10
St. Regis Paper Co., pf.	88	82⅞	82⅞
Scott Paper Co.	43½	42	43½
Scott Paper Co., pf.	96	95	95
Sutherland Paper Co.	41	39	41
Union Bag & Paper Corp.	31⅞	29⅜	31⅞
United Paperboard Co.	15⅜	14⅜	15⅛
U. S. Gypsum Co.	103¼	100	103¼
U. S. Gypsum Co., pf.	179	177¼	177¼
United Wallpaper	5¾	5½	5⅝
United Wallpaper, pf.	36	34¾	36
West Virginia Pulp & Paper Co.	42¾	41¾	42
West Virginia Pulp & Paper Co., pf.	107½	105½	107½

BONDS

Celotex Corp., 3¼s '60	....	....	....
Certain-Teed Products Corp., 5½s '53	....	....	....
Champion Paper & Fibre Co., 3s '65	99⅞	99½	99½
Mead Corp., 3c '68	....	....	....

New York Curb Exchange

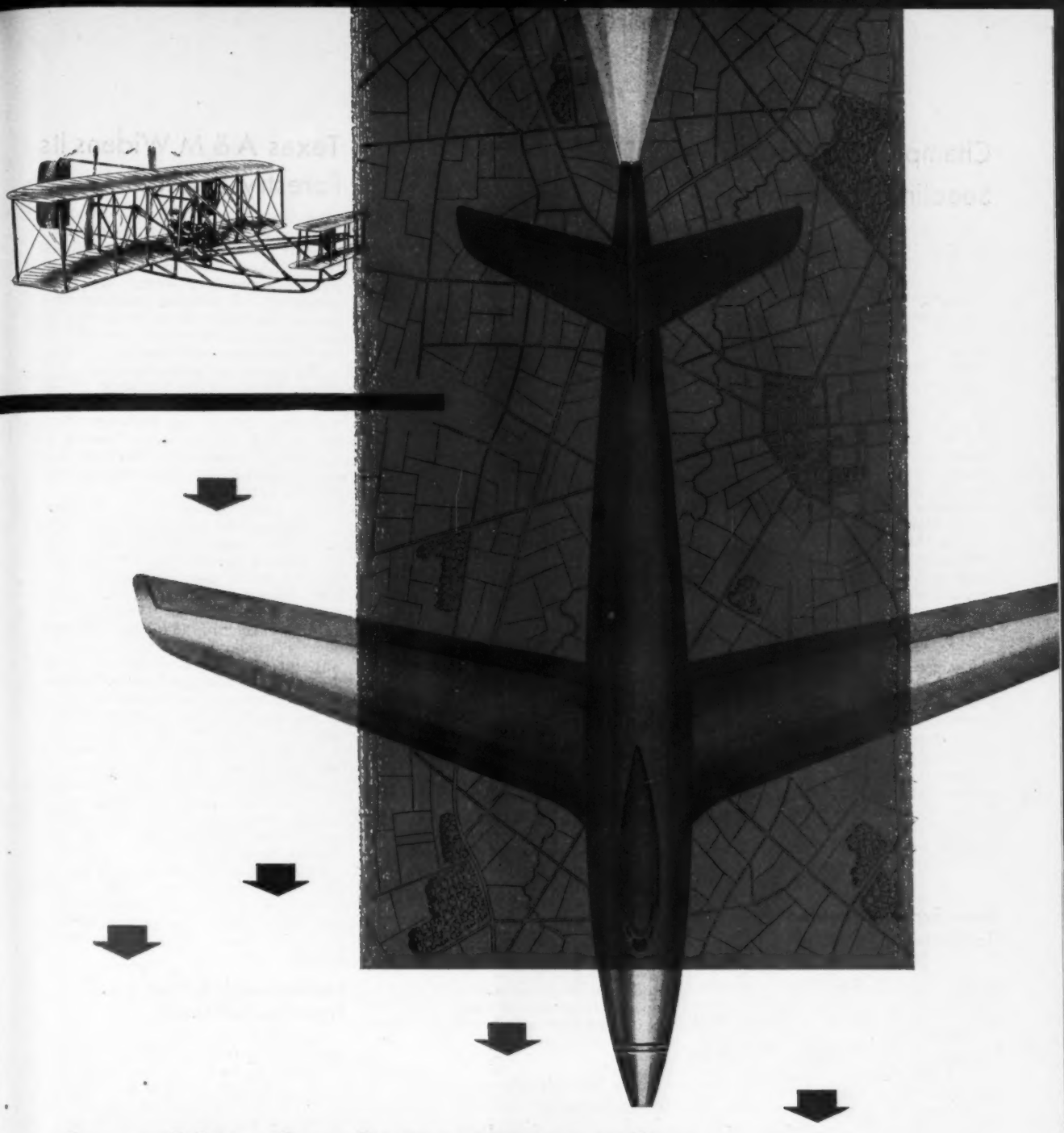
High, Low and Last for Week Ending December 13, 1947)

STOCKS

	High	Low	Last
Great Northern Paper Co.	46	44½	45¼
Taggart Corp.	10¾	10¾	10¾

BONDS

American Writing Paper Co., 6s '61	....	....	....



from kitty hawk to supersonics

It took a lot of pioneering groundwork in aerodynamics to lift the first "box kite" into the air . . . and on that groundwork planes now fly at supersonic speeds. Thus is progress in every field of science and industry an extension of sound pioneering thought and action. Niagara pioneered the production of many electro-chemical products in America and through research has constantly improved their quality and efficiency as chemical tools of progress, with the result that Niagara is today "An Essential Part of America's Great Chemical Enterprise."

NIAGARA ALKALI COMPANY

60 East 42nd Street, New York 17, N. Y.

LIQUID CHLORINE • CAUSTIC POTASH • CARBONATE OF POTASH • PARADICHLOROBENZENE • CAUSTIC SODA • NIAGATHAL (TETRACHLORO PHTHALIC ANHYDRIDE)

Champion To Double Seedling Program

WASHINGTON, D. C.—Two million seedling trees have been planted on the South Carolina and Texas holdings of the Champion Paper and Fibre Company during the past ten years, the concern announced, in revealing plans for expanding their planting operations.

This winter, 1,500,000 slash pine seedlings will be set out in South Carolina, a number equivalent to the company's total planting in that state for the ten-year period. One million of the new trees have been grown in a nursery leased from the U. S. Forest Service at Whitmire, S. C., with the remainder to be secured from the state. Plans call for the planting of two to three million seedlings during 1948 and 1949 with the two sources each providing half of the required trees. The company will continue to operate the Whitmire nursery until state nurseries can supply sufficient stocks.

Champion will plant two million seedlings this winter in Texas, with at least that many more scheduled for planting the following year.

Lowther tree planters will be used extensively in the work. Three of the machines are scheduled to operate in South Carolina with at least one to work in Texas. In the latter state, however, considerable acreage earmarked for reforestation will require hand planting.

Boon Explains Expansion To Kimberly Foremen

KIMBERLY, Wis.—H. G. Boon, vice-president of Kimberly-Clark Corporation in charge of the expansion program, addressed the Kimberly Mill Foremen's dinner Monday evening, December 15. The club now is three years old. It was started with about sixty members. Last spring the Atlas mill supervisors were invited to join. At present there are 103 members.

Industrial Affiliates Gather at Lunch

NEW YORK—About 200 members and guests of the Allied Industries Luncheon Club gathered in the West Ballroom of the Commodore Hotel for their fifth annual Christmas party on Tuesday of this week. The hosts of this affair were Industrial Affiliate member companies of the American Pulp and Paper Mill Superintendents Association. The guests were executives of pulp and paper companies who are located close enough to New York to attend the party conveniently. The purpose of this gettogether is to promote good fellowship and better understanding between pulp and paper mills and the firms that supply materials and equipment.

The committee, H. E. Overacker, chairman, S. W. Fletcher, J. W. Hemphill, Ralph Kumler, Norman Weil and William Willett spared no effort to make this an outstanding event of the Christmas season.

North Adams Hopes For Flood Control

NORTH ADAMS, Mass.—A possibility that this city and Adams may be able to get the Army Engineers Corps to revise its too-costly plan for flood control projects in the two communities and reduce them to a scale which will be considered economically feasible has been advanced here, when it was learned that such action is being taken regarding a Hoosick Falls, N. Y., project which, like those for the Northern Berkshire communities, had previously been shelved because the cost was too great in proportion to the benefits.

Col. Charles K. Panish, chief of the engineering division at the New York office, said his department is attempting to work out a program with New York State that will provide the Hoosick Falls area with a reduced project and that the study has made considerable progress.

He said that while the North Adams and Adams projects are still part of the open file in the engineer's office, both are inactive at the moment.

When Army engineers, at a public hearing held here September 10, 1946, indicated a definite thumbs-down on the proposed local projects because of the $6,500,000 estimated cost, local interests suggested and argued for a reduced project, but their efforts failed to make any headway.

Now, however, with Hoosick Falls being considered for a reduced project, hope has been revived that perhaps this area might receive favorable consideration on the same basis.

Crane Sets Up Its Bonus Formula

DALTON, Mass.—Crane & Company, officials have established that company employes, who are on the payroll December 31, will receive "extra compensation" as they have in past years. The officials added that the amount of compensation would be based on length of service. There are about nine hundred employes at the paper mills.

Employes with two or more years of service will receive about 80 hours' pay, while those with more than one year and less than two will receive about 40 hours' pay. Workers with less than one year with the company will share proportionately.

In determining the amount of compensation for returned servicemen, the time that these men served with the armed forces will be figured as time with the company, it was explained.

Texas A & M Widens Its Forestry Service

COLLEGE STATION, Tex.—The A&M College board of directors, who supervise the activities of the Texas Forest Service, have made it easier for the smaller timberland owners to avail themselves of personal on-the-ground service to assist them in producing and marketing increased supplies of forest products continuously.

The board has authorized Gibb Gilchrist, A&M College president, to accept funds from counties, towns, corporations, groups or individuals for use of the Texas Forest Service in employing management foresters who would give the service to smaller timberland owners.

The Texas Forest Service at present employs two project foresters who are partly financed with funds from the federal government. While their services are in such demand that they can't keep up with requests, present state and federal budgets will not permit the hiring of additional qualified men. Thus the board action clears the way for acceptance of private funds to permit the hiring of more management foresters on a cooperative basis.

The A&M College board also has approved an additional gift of $500 from W. Goodrich Jones of Waco for use in further developing a recreational area at the state forest bearing his name near Conroe in Montgomery county. Jones previously gave $1,000 toward this project, and a lake has already been made.

Other action by the board included the acceptance of an airplane and aerial camera from the Civil Air Patrol, Texas Forest Patrol unit for use in Texas Forest Service protection work.

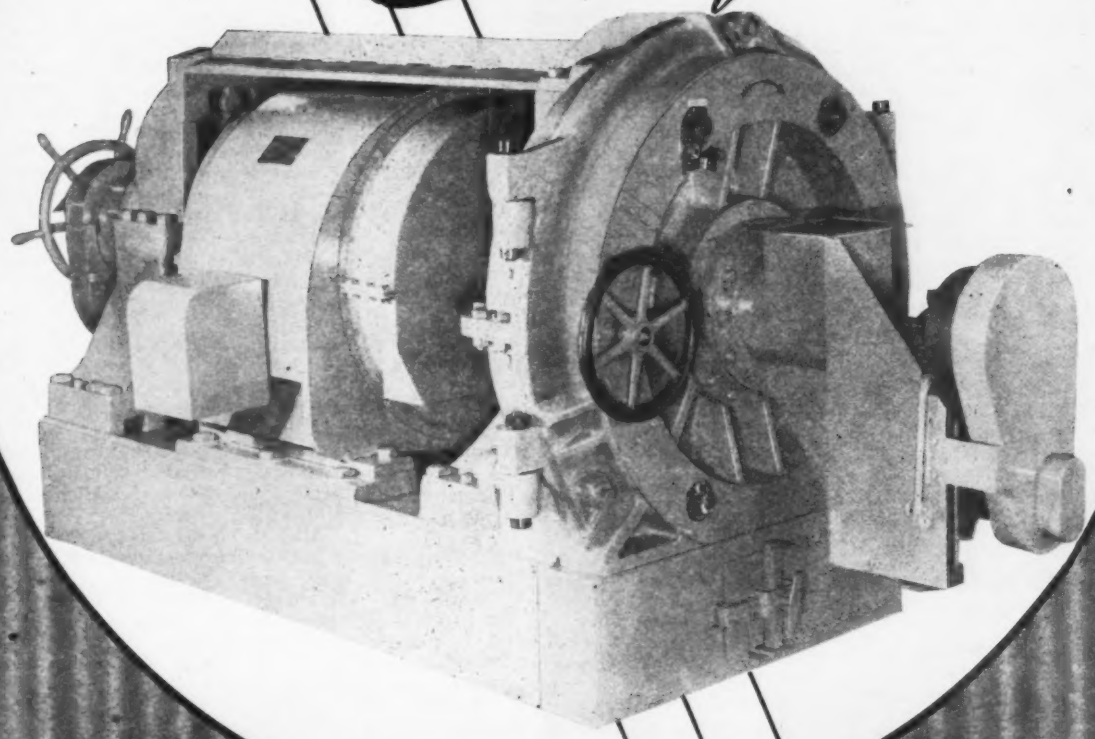
Hollingsworth & Vose Promotes Mill Heads

EAST WALPOLE, Mass. — The Hollingsworth & Vose Company, effective December 1, has promoted Eugene E. Smith, formerly general superintendent of the West Groton mill, to be production manager in charge of paper mill operations for both East Walpole and West Groton mills. Lorrel B. Nichols, formerly general superintendent of the East Walpole mill, becomes Development and Special Products manager. Roland W. Sawyer and Thomas J. McGuff become mill superintendents of the West Groton and East Walpole mills respectively. Mark Hollingsworth will be assistant to the production manager.

Peterson Talks to Legion Post

SPRINGFIELD, Mass. — Arthur F. Peterson, vice-president of the United States Envelope Company, discussed conditions in Europe, England, France, Belgium, Holland, Switzerland and American-occupied Germany, at a recent meeting of the Suffield American Legion Post, Suffield, Conn.

Quality THROUGH Design



Top quality 9-point board of high crush test is assured with a Sprout-Waldron Refiner. Expertly designed, S-W Refiners are outstanding in their action following stationary, rotary, and continuous cookers on semi-chemical pulp.

Fiber bundles are separated at high capacity with a minimum of fines . . . and at low power cost.

SPROUT-WALDRON & COMPANY
Muncy, Pennsylvania

SPROUT WALDRON
Manufacturing Engineers

Luckenweld Delivers Dexter's Digester

WATERTOWN, N. Y. — The first and largest stainless steel digester in the world has just been delivered to the Dexter Sulphite Pulp & Paper Company and is now in process of being installed in the company's new sulphite plant, where it will be the first of a battery of two with a total capacity of about 120 tons of high grade Mitscherlich sulphite pulp per 24 hours.

The big digester, used in cooking the pulpwood chips in hot sulphuric acid to form sulphite pulp, weighs 42 tons, is 40 feet in length and 13 feet in diameter. It is lined with stainless steel, was manufactured by the Lukenweld company and fabricated by the Lancaster Iron Works at Lancaster, Pa.

A special truck had to be built to haul it and special permits and trooper escorts had to be obtained to haul it over certain highways and bridges. In this connection a route had to be surveyed for it and it moved but eight miles an hour in transport, the trip requiring 13 days because of highway conditions instead of the three days it was expected to take.

Upon the special truck the digester's top was 15 feet above the road way, and the routing of it by-passed communities wherever possible and took into consideration bridges capable of sustaining the big load. Shipment by train was found to be impossible.

The digester is part of the new plant that has been in process of construction by the Dexter Sulphite Pulp & Paper Company during the past year and a half.

A new paper machine for the manufacture of glassine and special papers has already been delivered by the Bagley & Sewall Company and will be set up after the completion of the new machine room, which will be started in the spring.

The new steam turbo system, which is to furnish both heat and power for the new mill, is already practically completed and the boiler house finished. When finished, the new plant will have cost approximately $2,000,000.

Sheppard Envelope Holds Old-Timers Dinner

WORCESTER, Mass.—Rev. Dr. Thomas S. Roy, Baptist minister, was the principal speaker at the fourth annual Pension Group dinner of Sheppard Envelope Company, held recently in the Sheraton Hotel. Guests included 37 members of the company's Old Timers' Group and company officers and directors.

Miss N. Myra Glazier, company president, gave presents to three employes who retired after 65 years combined service with the company. They were: George W. Smith, veteran of 22 years; William Eddy, 24 years; and Wilson S. Doe, 19 years.

Nekoosa-Edwards Lifts Hourly Rate

PORT EDWARDS, Wis.—John E. Alexander, president and general manager of Nekoosa-Edwards Paper Company, late last week promulgated a five-cent per hour horizontal wage increase for all hourly workers, effective December 7. This increase brings the base wage scale for male employees to $1.10 per hour.

Negotiations for the increase were completed at a meeting held December 5 in the company offices at Port Edwards. The three unions having jurisdiction at Nekoosa-Edwards and their representatives at the meeting are: International Brotherhood of Pulp, Sulphite and Paper Mill Workers, Nepco Local No. 52, Frank Neuman and Dan Edwards; International Association of Machinists, Nepco Local No. 1543, Art Morgan and Rendall McDonnell; International Brotherhood of Paper Makers, Nepco Local No. 59, Reno Plenge and Art Knoll. The International Brotherhood of Paper Makers was also represented by Ed Gilbertson of the International headquarters.

Representing Nekoosa-Edwards at the meeting were C. H. Reese, vice-president in charge of manufacturing, W. R. Cahill, director of personnel and F. H. Rosebush, department of personnel.

Package Machinery Force Receives 8-Cent Pay Raise

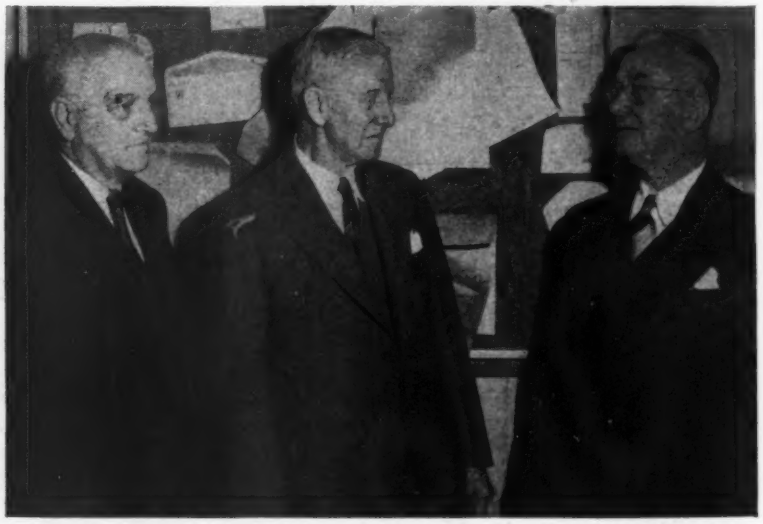
SPRINGFIELD, Mass.—Employes of the Package Machinery Company, East Longmeadow, have received an eight-cent-an-hour pay increase, according to a statement issued jointly by George A. Mohlman, president of the company, and Leo Messier, president of Local 220, United Electrical, Radio and Machine Workers of America, CIO.

RCI Plans $10 Million Expansion Program

DETROIT—At the annual management-managers meeting of Reichhold Chemicals, held recently Henry H. Reichhold, Chairman of the Board, disclosed that the corporation will spend approximately $10 million for expanding and enlarging the company's production facilities. The amount is to be used for increasing production capacity at RCI plants in Detroit, Elizabeth, N. J., Brooklyn, N. Y., South San Francisco, Tuscaloosa, Ala., Seattle, Wash., Liverpool, England, Paris, Sydney, Rio, Milan and Zurich, and for the building of additional plants in this country to increase the available amounts of certain scarce chemicals. In recent years said raw material scarcities have curtailed the company's production of synthetic resins, chemical color pigments, phenolic plastics and industrial chemicals.

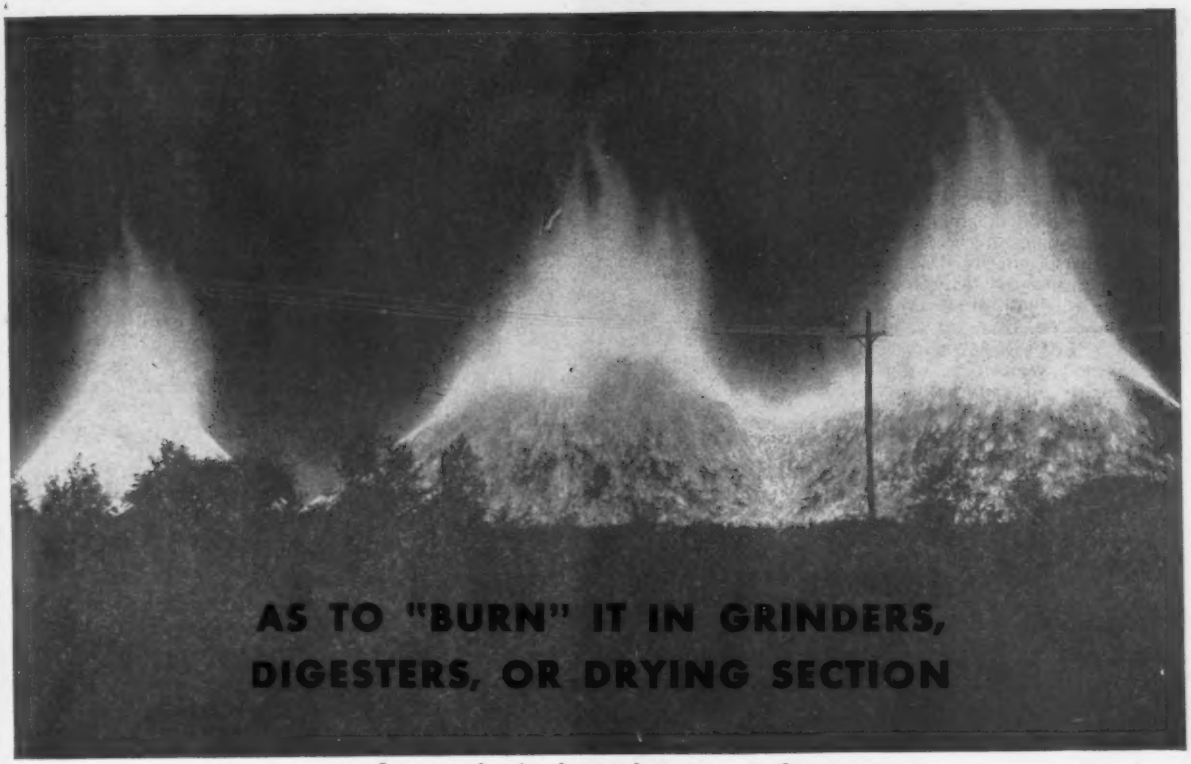
During the year now ending, and in addition to expanding the manufacturing facilities of all its factories, RCI opened new plants in Seattle, for the manufacture of p h e n o l i c adhesive resins, in Tuscaloosa, for the making of chemical color pigments, in Elizabeth, for the production of maleic anhydride and in Zurich, and Milan, for the processing of synthetic resins. At the moment, a synthetic resin plant is in process and construction in Rio de Janeiro and another is to be started soon in Mexico City.

Mr. Reichhold also declared that Fred Grosius, treasurer of the company, and T. K. Haven, vice-president in charge of finance, had been elected to membership on the corporation's directorate. Also that H. W. Mason, Jr. and E. A. Terray had been elected to vice-presidencies, the former in charge of purchases and the latter in charge of exports.



Retiring employes of Sheppard Envelope Company whose combined service in the industry totals 143 years. L. to R. Wilson S. Doe, George W. Smith, and William Eddy.

You might as well burn your pulp wood like this...



26,000 cords of pulp wood going up in flames

IN THE GRINDER, excessively high temperature produces discolored stock on the brownish side, a lot of short, fine fibers, a certain amount of "flour pulp" and possible stone facture. If it goes too low, you run up against coarse or bundled fibers and needlessly high power consumption.

IN THE DIGESTER, whether soda, sulphate, or sulphite—and particularly before the end of the penetration period, too-high temperatures not only waste steam, but cut down the yield by giving you hard brown chips. But if they're maintained according to your predetermined ideal time-temperature-pressure schedule, you increase the yield of top-quality No. 1 pulp—"tops" in color, bleachability, fiber strength, and freeness.

AND ON THE DRYER SECTION, excessively high temperatures result in hard, brittle sheets that won't take ink readily or uniformly, that are apt to cockle and curl, and refuse to lay flat on the press. What's more, an overdry sheet means steam waste and higher drying costs. A wood fiber that has been exposed to extremely high temperatures never regains its original tensile strength or character.

Taylor has developed simple, dependable, automatic control systems to maintain the ideal temperatures for *any* type of grinder, pulp digester, or dryer. For full details, call in your Taylor Field Engineer. Or write Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

Instruments for indicating, recording and controlling temperature, pressure, humidity, flow and liquid level.

TAYLOR INSTRUMENTS MEAN ACCURACY FIRST

Canada to Consider Price Increases

(Continued from page 7)

in the matter of pulpwood costs. Even before the recent price increase, some newsprint company spokesmen had voiced strong opposition to a price boost at this time.

A price increase of $6 a ton brings newsprint to $96 a ton New York and $92 a ton in Canada. On the basis of probable Abitibi and International sales next year, the $6 increase will mean something like seven or eight million dollars additional U. S. exchange to this country.

It is considered likely, however, that other companies will follow the pattern set by Consolidated, announcing price increases to take effect after the first two or three months of next year, should operating costs continue to rise. Canadian woodpulp producers are said to be ready to increase the export price of pulp by $10 a ton, commencing the first of next year. This would mean an increase of approximately $15 million on the estimated 1947 exports to U. S. of 1.5 million tons. It would also bring the Canadian price closer to Swedish pulp prices. Quotations on Swedish pulp are $30 to $50 a ton higher than Canadian prices.

The Financial Post, Toronto, raises the question of how much the market can stand in the way of increased prices. The paper comments:

"Inventories of wood pulp in the U. S. at the end of October stood at 758,000 tons, the highest for some years. Paper production in the U. S. in recent months has moved ahead faster than demand. A recent U. S. Commerce Department forecast stated that supply-demand in paper supplies (other than newsprint) is expected to level off in 1948.

"Just how much wood pulp the U. S. market can take is a question likely to be given serious consideration. There is no doubt the U. S. is the most attractive market for all pulp producers. Need for U. S. dollars, coupled with that country's apparent ability to buy up all the pulp offered makes it a natural target for pulp producers. Sweden, for example, has announced that it will cut back its exports to Europe by 50% to make more pulp available for export to U. S.

"Whether the cumulative effect of these factors will weaken the U. S. pulp market remains to be seen and it will largely depend on how much paper demand and production increase in the U. S. next year.

"For the present the Swedish move in cutting back European exports has created a somewhat bizarre situation. Wood pulp is also in short supply in Europe and it was mentioned as one of the requirements of the 16 countries coming under the Marshall plan.

"In its report the Harriman Committee sttaed that it did not think U. S. could realese any significant amounts of wood pulp for export. Thus Sweden temporarily forsakes its normal market to earn badly needed U. S. dollars, and European countries look to United States—a non-exporter of pulps—for some of their supply.

"From the Canadian standpoint, the present wood pulp market means good business for such cofpanies as Abitibi, B. C. Pulp, Canadian International Paper, Brown Corporation and others which have a large tonnage of saleable pulp. At the same time, however, it is pointed out that the present high pulp prices provide little incentive to increase the production of higher grade paper in Canada."

This so-called "austerity" program inaugurated by the Canadian government to save U. S. dollars. really does not deprive the mass of the people of very much that they feel they must have, but at the same time the ban on certain imports and the Excise Tax of 25 per cent on similar made-in-Canada products, has a great many ramifications. Each business or industry, of course, sees the new regulations from its own angle, but the overall aspects are now beginning to be noticed by the general public. For instance, no less than 279 "titles" have been ousted from the newsstands. About 145 of these are comics and the balance "pulps" and "slicks," in the detective, love, western and thrill class.

Some distributors have asked extension of the embargo deadline until January 1, to solve the problem of periodicals in transit, but this has been denied. The ban will begin to be felt in January when titles will disappear rapidly, but the supply will be partially met by Canadian printings.

Wholesalers and distributors expected to be pretty hard hit by the ban on all these titles, but some U. S. publishers have plans for publishing in Canada and others will lease their Canadian rights to Canadian printers. There have, however, been some staff reductions.

The U. S. publisher can divert to Canada or leave in Canada sufficient of his former paper supply to take care of Canadian needs. His difficulty is in getting press time. While three large publishers are known to have made arrangements to devote available press time to U. S. pulps and comics, there simply isn't suffifficient plant capacity offering in Canada to counterbalance the volume of such material now shut off entirely.

No ban has been placed on the importation of printing plates from the U. S. for use either by U. S. firms in Canada or by Canadian firms publishing on their own. It is understood that movie magazines are escaping the import ban. Another exception to the ban is the cross-word puzzle magazine.

Presently, printing pressmen in the Toronto area are trying to get a boost in pay and how much of this additional printing business will be done in this city, considered the center of the industry in Canada, will depend, it is said, on how soon and in what manner the present dispute with the pressmen is settled.

New England Trade Gathers at Dinner

BOSTON—With attendance at 150, a regional meeting of the membership of the New England Paper Merchants Association was held at the Parker House, December 9. At the opening session at 3 p.m., with President Paul Jones (Storrs & Bement) in the chair, the joint business meeting was held. At 4 p.m. individual sessions were held, with Vice-president Donald Gibbs (Kendall Paper) presiding over the Wrapping Paper Division and President Jones over the Fine Paper Division.

A social session followed at 5:30 to which members invited mill representatives as their guests. Dinner in the Roof Ball Room followed.

Immediately following the dinner, President Jones gave an inspiring talk on "Good Distributor-Mill Relations." William Staples, assistant secretary of the American Paper and Pulp Association, delivered an address, speaking frankly on the paper production situation, present and projected, and its relationship to distribution. Mr. Staples made certain references to the Marshall Plan and to the recently revised import tariff. The speaker injected considerable humor into his talk, receiving resounding applause at the close.

The program continued with technicolor sound moving pictures. One film was "Twenty Centuries of Progress in Cordage" and the other, sports reviews, including the previous Louis fights and the 1947 World Series.

Guests included W. G. Leathers, Assistant secertary of the National Paper Trade Association; William B. Dunning, Sr., of the Logan Paper Co., Auburn, N. Y.; Butler Cox, of Fine Papers, Inc., Rochester, N. Y. Others at the head table included President Paul Jones, Frank Holden, vice-president of the Association in charge of the Fine Paper Division (Rourke-Eno Paper Co., Hartford, Conn.); Frank B. Cummings, treasurer of the Association, and Norman E. Scott, executive secretary.

Westvaco Calendar Features Covington Mill Picture

NEW YORK—The 1948 West Virginia Pulp and Paper Company calendar, featuring a full color reproduction of an oil painting of the company's plant at Covington, Virginia, soon will be distributed to dealers, customers, stockholders and employes.

The new calendar marks a departure from the series of early American historical paintings which have been featured on the company's calendars for several years.

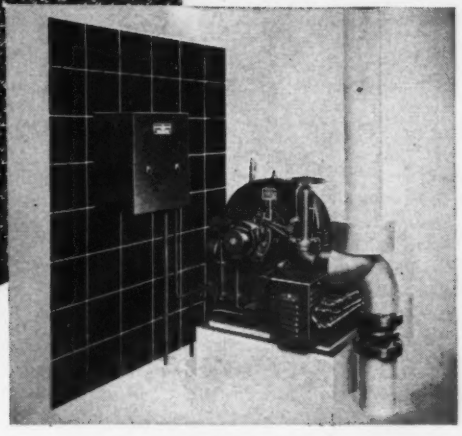
The 1948 painting includes a full panorama of the Covington plant, which is located along the Jackson River in a picturesque valley of the Allegheny Mountains.

SPEED CONTROL

...at your fingertip!

WITH THIS

TURBINE DRIVE



No need to shut down for speed changes when you drive your machines with this G-E steam turbine. Speed of the drive can be changed easily during operation by simple push-button control. This control—placed where it's most convenient—permits smooth, continuous speed adjustment throughout the operating range.

If you anticipate frequent speed changes during operation, "pre-set" control, with a separate push button for each pre-selected speed, can be provided.

WIDE RANGE

You have a wide range of speeds at your fingertip. The Type DE turbine can be designed to operate over speed ranges as great as 30 to 1, with no loss in accuracy.

NO HUNTING

Hunting and speed fluctuation are eliminated. This helps assure uniformity in your product, and reduces the chances of spoilage.

HIGH ACCURACY

The electrical governing system used on this turbine gives speed control accuracy far in advance of previous controls. Under normal operating conditions, this governor holds speed within ¼ of one per cent.

Such accuracy in your machine drives can really pay off in greater output and improved quality control.

GIVE YOUR OUTPUT A BOOST

Our turbine specialists will be glad to show you how these easily controlled, wide-range drives can step up the output of your processing machines. Get in touch with the nearest G-E Apparatus Sales Office, or write Apparatus Department, General Electric Co., Schenectady 5, N. Y.

GENERAL ELECTRIC

IMPORTS

NEW YORK IMPORTS

WEEK ENDING DECEMBER 13, 1947

SUMMARY

Printing Paper	24 rolls
Paperhangings	12 bls., 5 cs.
Wallpaper	1 cs.
Drawing Paper	4 cs.
Wrapping Paper	52 bls., 2091 rolls
Writing Paper	1 cs.
Sulphite Paper	51 rolls
Filter Paper	26 cs.
Parchment Paper	9 cs.
Rice Paper	40 cs.
Miscellaneous Paper	96 rolls

PRINTING PAPER

F. C. Strype, Westerdam, Rotterdam, 24 rolls.

PAPERHANGINGS

W. H. S. Lloyd & Co., Thomas C. Power, London, 12 bls., 5 cs.

WALLPAPER

Kersten Shipping Co., American Banker, London, 1 cs.

DRAWING PAPER

Lansen Naeve Co., American Banker, Havre, 3 cs.

International Expediters, Thomas C. Power, London, 1 cs.

WRAPPING PAPER

Manufacturers Trust Co., Drottningholm, Gothenburg, 27 bls., 24 rolls.

Bank of The Manhattan Co., Drottningholm, Gothenburg, 93 rolls.

National City Bank, Drottningholm, Gothenburg, 252 rolls.

S. B. Behrens, Drottningholm, Gothenburg, 1722 rolls, 25 bls.

WRITING PAPER

Victor Hammer, Mount Davis, Leghorn, 1 cs.

SULPHITE PAPER

J. B. Lynch & Co., Drottningholm, Gothenburg, 51 rolls (glazed).

FILTER PAPER

H. Reeve Angel & Co., Inc., Thomas C. Power, London, 26 cs.

PARCHMENT PAPER

George Lippelgoes, Ames Victory, Antwerp, 8 cs.

M. Harrison Co., Queen Mary, Southampton, 1 cs.

RICE PAPER

Chun-no Co., Trien Maersk, Keelung, 40 cs.

MISCELLANEOUS PAPER

Chemical National Bank, Drottningholm, Gothenburg, 96 rolls.

RAGS, BAGGINGS, ETC.

E. J. Keller Co., Inc., Pacific Victory, Alexandria, 426 bls. paperstock.

Manufacturers Trust Co., Pacific Victory, Genoa, 122 bls. old waste bagging.

Chase National Bank, Pacific Victory, Genoa, 45 bls. old bagging.

Cowa & Co., Mormackite, Rio de Janeiro, 66 bls. cotton picker waste.

National City Bank, Loide Mexico, Santos, 350 bls. old waste bagging.

(———), Loide Mexico, Santos, 45 bls. old bagging.

E. J. Keller Co., Inc., Ames Victory, Antwerp, 63 bls. rags.

A. De Vries Trading Corp., Ames Victory, Antwerp, 59 bls. rags.

D. Benedetto, Coastal Delegate, Havana, 69 bls. rags.

New England Waste Co., City of Doncaster, Madras, 292 bls. cotton waste.

New England Waste Co., City of Doncaster, Tuticorin, 200 bls. cotton waste.

Rubins Bros., Waste Co., Mormacdove, Buenos Aires, 14 bls. light colored worsted knit clips.

(———), Mormacdove, Buenos Aires, 57 bls. cotton waste.

M. E. Schoen Corp., Trein Maersk, Yokohama, 100 bls. cotton waste.

C. Kutz, Trein Maersk, Yokohama, 100 bls. cotton waste.

New England Waste Co., Trein Maersk, Yokohama, 100 bls. cotton waste.

E. J. Keller Co., Inc., Trein Maersk, Yokohama, 200 bls. old waste cotton tares.

Buffalo Batt & Felt Corp., Mount Davis, Bombay, 56 lbs. cotton waste.

New England Waste Co., Mount Davis, Bombay, 426 bls. cotton waste.

A. W. Fenton Co., Mount Davis, Alexandria, 103 bls. old waste bagging.

OLD ROPE

(———), City of Doncaster, Calcutta, 100 bls. old hemp rope cuttings.

Continental Bank Trust Co., City of Doncaster, Calcutta, 190 bls. old hemp rope cuttings.

(———), Macharda, Calcutta, 219 bls. old hemp rope cuttings.

HIDECUTTINGS

John Gorvers, Santa Ines, Barranquilla, 118 bls.

CASEIN

F. Griffin, Kaipaki, Auckland, 240 bags (lactic).

F. H. Paul & Stein Bros., Mormacdove, Buenos Aires, 500 bags.

American Cyanamid & Chemical Corp., Rio Juaramento, Buenos Aires, 1500 bags.

WOODPULP

Parsons & Whittemore, Inc., Drottningholm, Gothenburg, 438 bls. dry bleached sulphite pulp.

PHILADELPHIA IMPORTS

WEEK ENDING DECEMBER 13, 1947

Concentra Shipping Co., Pacific Victory, Genoa, 54 bls. dark cotton rags.

BOSTON IMPORTS

WEEK ENDING DECEMBER 13, 1947

International Purchasing Co., Pacific Victory, Genoa, 149 bls. old white manila rope.

(———), Pacific Victory, Genoa, 91 bls. dark cotton rags.

Concentra Shipping Co., Mount Davis, Genoa, 74 bls. dark cotton rags.

Australia Restricts Newsprint Imports

WASHINGTON—The Australian government has ordered a 30 per cent reduction in imports of newsprint from the United States and Canada, as a dollar-conservation measure, this Government has been advised.

An order placed earlier for 60,000 tons to be delivered before the end of 1947 was reduced to 45,000 tons, it was reported. Imports during the first 8 months of the year are estimated at 108,000 tons, and for the entire year, are not expected to exceed 153,000 tons. Canada and Newfoundland were the only suppliers during the year.

Members of the Australian paper trade have asked for a 1948 quota of 250,000 tons, but newsprint imports have been definitely limited by government action to 122,250 tons.

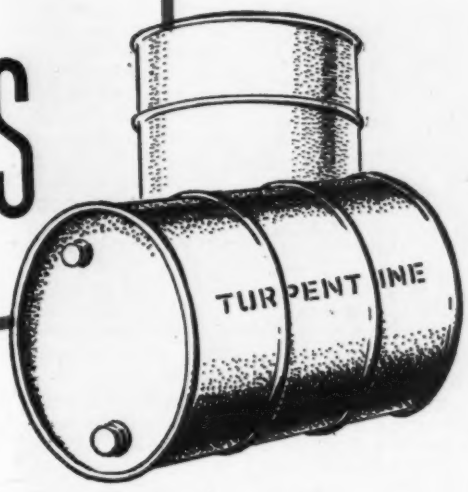
Prohibited from importation are the following: carbon, cartridge, cellophane for wrapping, cigarette paper, copying, cover add pressings, duplicating, gummed sheets and rolls, marble and foil vegetable parchment, roofing and sheathing, surface coated and box cover paper, fruit wrapping, paper hangings and wallpaper, paper for use in manufacture of toilet tissue, carton and container boards; and paper patterns except master patterns. Items that can be admitted only in reduced volume are tissue paper for paper patterns, writing and printing paper.

Importers Yield Claims On Japanese Tissue

NEW YORK—During the past month New York importers abandoned fifty-six cases which involved the dutiability of Japanese tissue papers. Some of these cases have been before the United States Customs Court since 1932. In every case the importers had claimed that the imported paper was dutiable at 5 cents per pound and 15 percent as filtering paper, but the Customs officials had found them to be dutiable either as tissue paper weighing less than 6 pounds per ream at 6 cents per pound and 20 percent, or as paper cut into shapes at 30 percent. In every case either rate is higher than that claimed by the importers, and in every case the final duty to be collected will be the higher of these two rates.

According to a report by Warren B. Bullock, manager of the Import Committee of the American Paper Industry, question has been raised as to the classification of paper ordered for delivery on both the Atlantic and Pacific Coast, the issue being whether it is dutiable as printing paper or at the higher rate for Bible paper. The paper weighs 18 pounds, 20x30—480 and because of its opacity and weight is believed by Customs officials at different ports to be Bible paper.

MORE PAPER PROFITS



Yes, more profits. More profits through recovery of crude turpentine. Mixed with the steam released when a digester is vented are turpentine vapors. Condensing these vapors and marketing the product—turpentine—has become a profitable business for many mills. Get full information about FW high-yield recovery systems from any branch office, or address

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Write for your copy of the reprint "Turpentine Recovery in Paper Mills" which describes, and pictures, a typical installation.

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TRENDS

Office of the PAPER TRADE JOURNAL,
Wednesday, December 17, 1947

No further information has been forthcoming on Canadian newsprint prices for 1948, although the survey of the Newsprint Association of Canada reported the price of Canadian newsprint in the United States market to be the lowest of any major market in the world.

Newsprint production in Canada for October was the highest tonnage on record, with 396,251 tons, a 5.3 percent increase over the same month of 1946, or 104.3 percent of capacity. The year should show increases of 1,400,000 tons over the prewar average, of which 93 percent is United States consumed, or 82 percent of Canadian output and 61 percent of available world supply.

Scything across Canadian price statements comes carefully-timed releases that several new paper mills are planned in the South for the production of newsprint from slash pine which, through advances in chemical processes, can now be manufactured with improved strength and brightness. It is reported that these new projects will be commenced in 1948 to develop American sources on newsprint that in future years will make it unnecessary for American consumers to look to any outside major source of supply. Newsprint production is considered to be a fully developed domestic demand and as such the largest field for investment. Large machinery manufacturers state that they are devoting whole departments to the development of machinery to meet such demand.

It is not anticipated that the world's newsprint shortage can be satisfied rapidly, however, nor that consumption can lessen. Present-day shortages are attributed to wider circulation through greater reading habits acquired because of (1) interest in war news, (2) enlarged interest in world affairs particularly by young men and women whose international service widened their horizons, (3) increasing worldwide literacy; while in some countries there is wider newspaper reading because there is so little else to read as a result of paper shortages. Heavier tonnage will be required by India and China before they are able to develop their own industries, although experiments with native woods have given hope that this is planned for the near future.

The seven million pounds which the New Zealand government plans to spend in the development of newsprint from the abundant supply of pinus radiata is expected to produce an abundant supply of good paper. It is reported by the *World Paper Trade Review* that some of the oldest trees in the world are to be turned into newsprint. They are huge "swamp gums," a variety of eucalyptus, some of which were growing in the days of Queen Elizabeth.

The same periodical reports that British Columbia is seriously concerned about finding markets for her surplus paper products within the year, particularly "if the contagion of nations banning imports to save dollars spreads at the present rate." Paper interests point out that such restrictions on imports to many European and Latin countries will have no effect for possibly six months or longer in view of the huge order files covering the next few months. Pulp and paper companies likewise are uncertain as to just how much their business will be affected by the recent announcement that Australia will cut her buying of newsprint from Canada by 30 percent. (Australia's consumption will be limited to 51 percent of prewar consumption, or 90,000 tons annually, both imported and Australian production.)

A further report that British Columbia was experiencing concern that the Southland's newsprint machine with its 50,000 tons yearly output would disturb its market in the southwest may have some basis in fact; but that it should do more than relocate British Columbia's market is held to be unlikely while the world's newsprint shortage exists.

Increased capacities planned for 1948 by the new paper machines under construction are estimated as bringing the supply-demand into balance. No new production is reported for fine papers where a keen shortage now exists, however. It is considered likely that when such a balance is struck, more market pulp might become available on the domestic market and thus bring relief to fine paper mills. All this is predicated on the United States market since there is no way of ascertaining foreign trends.

Woodpulp

Canadian groundwood is reported up $5 a ton for the first quarter, and it is rumored that domestic prices will show a marked advance even though mills desire to maintain steady price levels.

Paperboard

The backlog of orders for the week ended December 6 was 46,172 tons greater than the previous week's, with new orders 57,651 tons and production at 183.7 percent of capacity. Demand continues so strong that it is estimated there will not be enough pulp to maintain production on present capacity rates in the first half of next year.

Waste Paper

Collections for folded news are less voluminous but orders are small. Dealers are trying to hold prices. Market is slow on low grades, moderate on old corrugated, and strong for high grades. Prices firm. Seasonal falling off expected for remainder of year.

Rags

Trading is slow in old rags with mills showing limited interest, buying only sufficient to take up production schedule. There is no activity on roofing rags. New cottons are in strong demand with trading limited by supply. Prices on old rags are unchanged but not firm; on new cottons strong.

Index

The index of general business activity for the week ended December 6 rose to 155.4 from 150.8 in the preceding week, compared with 136.6 in the corresponding week of 1946. The index of paperboard production dropped to 183.7 from 194.4 in the preceding week, compared with 176.4 in the corresponding week of 1946.

Paper production for the week ended December 6 was estimated at 112.7 percent, compared with 107.4 (revised figure) for the preceding week, with 106.6 for the corresponding week of 1946, with 99.0 in 1945, and with 93.7 percent for the corresponding week of 1944.

Paperboard production for the week ended December 6 was 98.0 percent of capacity, compared with 100.0 for the preceding week, with 99.0 for the corresponding week of 1946, with 97.0 for 1945, and with 95.0 for the corresponding week of 1944.

Materials Handling Group Elects Perin President

SAN FRANCISCO—Ray Perin, of the Ira G. Perin Co., for 35 years west coast representative for Elwell-Parker trucks, has been elected president of the fourteen-year old Materials Handling Association of Northern California. Raymond J. Perin, age 38, is a graduate of Stanford University, class of 1930. He served with the Goodyear Rubber Company at its British plant during the war. Upon his return he joined the Ira Perin company. He is a member of the American Society of Mechanical Engineers.

Bristol Publishes Bulletin On Accessories

A new Bulletin, No. P1235, covering thermocouples, protection tubes, and pyrometer accessories, has been published by The Bristol Company, Waterbury, Conn. The bulletin gives detailed drawings, complete information, and prices covering the accessories for pyrometers, which the company carries in stock for immediate shipment.

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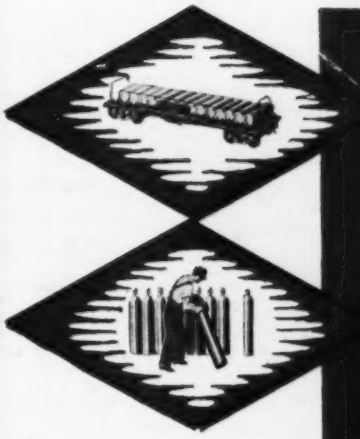

multi-unit cars, or in

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DIAMOND ALKALI COMPANY

PRICES

With the elimination of price controls on paper, pulp, rags and other materials, the quotations given below once more become indicative of trends in an open market. At the moment they can be of little more, for, while some volume business still is being done under contract at the figures given below, fluctuations representing special conditions are too varied and too frequent to permit prices to be given as representing a wholly stabilized market.

Paper

(Delivered New York)

Standard News, per ton—

Roll, contract	$87.50	to	$90.00
Sheets	$109.00	"	—

Kraft—per cwt.—Carload Quantities
Zone A Deld. 40 lb. base wgt.

Superstandard Wrapping	$9.00	to	—
No. 1 Wrapping	6.75	"	7.50
Standard Wrapping	6.50	"	7.25
Standard Bag	6.00	"	7.00

Tissues—Per Ream 24x36 (480) 11 lb. Zone 1.

Wh. No. 1 Frd.	$1.75	to	$2.00
Wh. No. 1 M. G.	1.75	"	2.00
Wh. No. 1½	1.60	"	—
Wh. No. 2	1.55	"	—
Kraft Anti-Tar	1.38½	"	—
Kraft Unbl.	1.85	"	—
Manila No. 2	1.62	"	—

Toilet—Per Case of 100 rolls—1 M Sheets.

Unbleached	$5.50	to	$6.40
Bleached	6.50	"	7.60

Paper Towels—Per Case of 3750—Zone 1.

Wh. Jr. M'tif'd 9¼x9½	$4.85
Br. Sr M'tif'd 10x12	3.45
Br. Jr. M'tif'd 9½x9¾	2.95
Br. Jr. Sgl. fold 10x10¾	3.10

Manila—per cwt.—C. l. f. a.

No. 1 Jute Tag	$14.50	to	—
Reg. Jute Manila	13.25	"	$15.50
No. 1 Manila	9.75	"	—

Boards, per ton—

News	$92.50	"	—
Chip	90.00	"	—
Sgl. Mla. L1 Chip*	102.50	"	—
White Pat. Coated*	120.00	"	—
Kraft Liners 42 lb.	100.00	"	—
Binders Boards	126.00	"	—

* Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5; basis 40-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

The following prices are representative of distributors' resale prices, all deliveries in Zone 1: Rag Content Bonds and Ledgers—

White, Assorted Items Bonds, per cwt.

	Carton	4 C't'n	Ton
100% Rag Ext. No. 1	$55.00	$50.80	$48.70
100% Rag	48.25	44.55	42.70
75% Rag	36.00	34.55	33.10
50% Rag	31.50	28.75	27.50
25% Rag	28.00	25.50	24.50

Ledgers, per cwt.

100% Rag Ext. No. 1	$54.25	$50.00	$48.00
100% Rag	$47.50	$43.90	$42.10
75% Rag	37.50	34.55	33.10
50% Rag	32.25	29.40	28.25
25% Rag	28.75	26.15	25.10

Sulphite Bonds and Ledgers—White, Assorted Items

Bonds, per cwt.

No. 1	$19.25	$17.50	$17.00
No. 2	18.25	16.50	16.00
No. 4	17.50	16.00	15.25

Ledgers, per cwt.

No. 1	$20.25	$18.35	$17.60
No. 2	19.25	17.50	16.80
No. 4	18.50	16.90	16.10

Free Sheet Book Papers—White, Cased Paper

(Per cwt.)	Case	Ton
No. 1 Glossy Coated	$20.40	$19.55
No. 2 Glossy Coated	19.15	18.30
No. 3 Glossy Coated	18.40	17.60

(Per cwt.)	Case	Ton
No. 1 Antique (Watermarked)	$15.90	$15.15
No. 2 Offset	14.15 to 17.90	13.65 to 17.10
A Grade E. F.	14.90	14.25
A Grade S. & S. C.	15.40	14.65
B Grade E. F.	Nominal	
B Grade S. C.	Nominal	

Wood Pulp

Domestic mill contract prices delivered with varying freight allowances.

	Per Short ADT
Groundwood	$75.00 to $81.00
Unbleached Sulphite	115.00 " 117.00
Bleached Sulphite	121.00 " 130.00
Bleached Soda	120.00 " —
Bleached Sulphate Northern	Nominal
Unbleached Sulphate Northern	Nominal
Unbleached Sulphate Southern	Nominal

Canadian Quotations

Prices delivered with varying freight allowances unless otherwise specified:

	Per Short ADT
Select Unbleached Kraft (no freight allowance)	125.00 " —
Reg. No. 1 Kraft	112.50 " 115.00
Unbleached Sulphite	115.00 " 117.00
Bleached Sulphite	125.00 " 155.00
Glassine Unbleached Sulphite (no freight allowance)	112.00 " —
Bleached Soda	120.00 " —
Groundwood	75.00 " 85.00
Siderurus Pulping News	75.00 " 80.00
Hardwood and Specialty Grades	Nominal

Swedish Quotations
On dock, Atlantic Ports

	Per Short ADT
Bleached Kraft	170.00 to 195.00
Bleached Sulphite	175.00 " 185.00
Unbleached Sulphite	145.000 " 175.00
Unbleached Kraft	140.00 " 165.00

Finnish Quotations
On dock, Atlantic Ports

	Per Short ADT
Bleached Sulphite	$175.00 to —
Unbleached Sulphate	145.00 " 150.00
Unbleached Sulphate	140.00 " —

New Domestic Cotton Cuttings

(F.O.B. Shipping Point Plus Dealer's Commission)

White Shirt	$11.50 to	$12.00
Light Silesias	8.00 "	—
Unbleached Muslin	11.50 "	12.00
White Back Blue Overalls	9.00 "	9.25
Blue Overalls	8.00 "	8.50
Fancy Shirt	6.00 "	6.75
Light Percales	7.50 "	7.75
Light Prints	6.50 "	6.75
No. 1 Washables	5.00 "	—
Bleachable Khaki	7.00 "	7.50
Unbleachable Khaki	6.00 "	6.50
Cottonades	5.50 "	5.75

Old Domestic Cotton Rags

(F.O.B. Shipping Point Plus Dealer's Commission)

	Per 100 lbs.	
No. 1 Whites Repacked	$5.00 to	—
No. 1 Whites Miscellaneous	4.00 "	—
No. 2 Whites Repacked	3.50 "	3.75
No. 2 Whites Miscellaneous	3.00 "	—
Blue Overalls	3.75 "	—
Thirds and Blues Repacked	3.25 "	—
No. 1 Roofing Rags	1.90 "	2.00
No. 2 Roofing Rags	1.75 "	—
No. 3 Jute Bagging	1.60 "	—
No. 4 Brussels and hard back carpets	1.60 "	—
No. 5A Roofing Rags	1.80 "	—

New Foreign Cotton Cuttings

(Prices to Mill, F.O.B. Dock, N. Y.)

	Per 100 lbs.	
New Dark Cuttings	$5.50 to	$5.75
New Mixed Cuttings	6.25 "	6.50
Light Silesias	9.25 "	9.50
Light Flannelettes	9.25 "	9.50
New White Cuttings	12.00 "	—
New Unbleached Cuttings	12.25 "	—
Fancy Shirt Cuttings	6.50 "	7.00
Light Prints	7.75 "	8.00
Bleachable Khaki, No. 1	7.00 "	7.50
Unbl. Khaki, No. 1	6.25 "	6.75

Old Foreign Rags

(Prices to Mill, f.o.b. dock, N.Y.)

	Per 100 lbs.	
No. 1 White Linens	$14.00 to	16.00
No. 2 White Linens	12.00 "	13.00
No. 3 White Linens	8.00 "	9.00
No. 4 White Linens	8.00 "	9.00
No. 1 White Cottons	10.00 "	12.00
No. 2 White Cottons	8.00 "	9.00
No. 3 White Cottons	6.50 "	7.00
No. 4 White Cottons	5.00 "	5.50
Extra Light Prints	7.50 "	8.00
No. 1 New Light Prints	6.25 "	6.75
Med. Light Prints	5.25 "	5.75
Dutch Blue Cottons	5.25 "	5.50
Checks and Blues	4.00 "	4.25
Linsey Garments	3.00 "	3.75
Dark Cottons	2.20 "	2.60
Old Shopperies	2.50 "	3.00
New Shopperies	2.50 "	3.00

Bagging

(Prices to Mill, f.o.b. N. Y.)

	Per 100 lbs.	
Foreign Gunny, No. 1	$5.50 to	$5.75
Domestic Gunny, No. 1	6.25 "	6.50
Light Wool Tares	5.75 "	6.25
Heavy Wool Tares	5.75 "	6.25
No. 1 Scrap Bagging	5.50 "	5.75
Foreign Manila Rope	6.00 "	6.75
Domestic Manila Rope	5.75 "	6.50
Jute Strings	4.50 "	5.00
No. 1 Sisal Strings	5.50 "	6.00
Mixed Strings	1.75 "	2.50
Mixed Strings, Outthrows	.90 "	1.10

Waste Paper

Base Prices to Mills for Average Packings

(Dollars Per Ton)
F.o.b. New York, Baled

No. 1 Hard White Envelope Cuts, one cut	155.00 to 165.00
No. 1 Hard White Envelope Cuts	145.00 " 155.00
No. 1 Hard White Shavings, unruled	145.00 " 155.00
No. 1 Hard White Shavings, ruled	110.00 " 130.00
Soft White Shavings, one cut	145.00 " 155.00
No. 1 Soft White Shavings	135.00 " 145.00
Soft White Shavings, Misc.	125.00 " 135.00
No. 1 Fly Leaf Shavings	45.00 " —
No. 1 Groundwood Fly Leaf Shavings	30.00 " —
No. 1 Heavy Books & Magazines	27.00 " —
Mixed Books	15.00 " 20.00
No. 1 White Ledger	85.00 " 90.00
New Manila Envelope Cuttings, one cut	100.00 " 110.00
New Manila Envelope Cuttings	65.00 " 75.00
Extra Manilas	25.00 " 30.00
Mixed Kraft, Env. & Bag Cuttings	75.00 " 85.00
Kraft Envelope Cuttings	110.00 " —
Triple Sorted, No. 1 Brown Soft Kraft	65.00 " 75.00
New Kraft Corrugated Cuttings	85.00 " 90.00
No. 1 Assorted Old Kraft	55.00 " 60.00
New Jute Corrugated Cuttings	27.00 " —
Old 100% Kraft Corrugated Containers	45.00 " 50.00
No. 1 News	13.00 " 15.00
No. 1 Mixed Paper	11.00 " 13.00
Box Board Cuttings	12.00 " 14.00
White Blank News	75.00 " 80.00
Overissue News	18.00 " 20.00
Old Corrugated	25.00 " 26.00
Mill Wrappers	22.00 " 25.00

Twines

All Prices Nominal, F.o.b. Mill

(Soft Fiber)

Coarse Polished—India	.28¼ to .29¼
Fine Polished—Fine India	.31¼ " .36½
Unpolished—Paper Makers	.24 " .25½
Tube Rope	.24¼ " .26¼
Wrapping	.30 " .32
Cotton	.55 " .70

(Hard Fiber)

Mex. Sisal	.21 " .31
Manila (Reprocessed)	.28 " .30

(American Hemp)

Polished Hemp	.36¼ " .42
Unpolished	.29¼ " .34

PHILADELPHIA

Domestic Rags (New)

(F.O.B. Eastern Shipping Point)

Shirt Cuttings—	
New White No. 1	.11 to .12
New White No. 2	nominal
Light Silesias	.07½ " .08
Black Silesias, soft	.06½ " .07
New Unbleached	.10½ " .11¼
Washable Prints	.06½ " .07
Washable No. 1	.05 " .05½
Blue Overall	.07½ " .08
Cottons—According to grades—	
Washable Shredding	.03½ " .04
Fancy Percales	.06¾ " .07¼
New Black Soft	nominal
Khaki Cuttings—	
Unbleachable Cotton Cuttings	.06 " .06½
Bleachable Cotton Cuttings	.07 " .07½
Men's Corduroy	.05½ " .06
Ladies' Corduroy	.05 " .05½
Cottonades	.05½ " .06

Domestic Rags (Old)

(F.O.B. Eastern Shipping Point)

White No. 1—Repacked	4.50 to 5.00
Mixed White	4.00 " 4.25
White No. 2—Repacked	3.50 " 3.75
Thirds and Blues—	
Miscellaneous	2.25 " 2.50
Repacked	2.75 " 3.00
Roofing Stock—	
Foreign No. 1	nominal
Domestic No. 1	1.85 " 1.90
Domestic No. 2	1.75 " 1.80
Roofing Bagging	1.65 " 1.70
Old Manila Rope	6.25 " 6.50

Bagging

(F.O.B. Eastern Shipping Point)

Gunny No. 1—	
Foreign	nominal
Domestic	4.75 to 5.25
No. 1 Clean Bright—	
Sisal Strings	.04 " .04½
No. 2 Clean Bright—	
Sisal Strings	.03 " .03¼
Sisal Jute	.02¾ " .03
Scrap—	
No. 1	4.25 " 4.75
No. 2	1.75 " 2.00

BEWARE
OF MAD SHORT CIRCUITS...

Protect Your High-voltage Motors with LIMITAMP CONTROL

Limitamp quickly and easily brings these mad short circuits under control. In less than *one-quarter* cycle, Limitamp's EJ-2 fuses cut off a rise in current from a short, and clear it in one-half cycle—long before the fault current has time to harm the contactor or motor. Your plant's power system needs this prompt handling of fault currents, and you will avoid the risk of costly shutdowns that can result from *one mad short circuit.*

A STARTER AND PROTECTOR IN ONE CABINET

G-E Limitamp control consists of an air-break contactor (the motor starter), and EJ-2 fuses (the short-circuit device). They are mounted in separate compartments of one, all-steel cabinet. Air-break contactors are specially designed for hard duty. Operating experience has proved that they furnish dependable, long-lived, low-cost service with only routine inspection.

Because they operate in air, they eliminate the problem of handling oil. And tip life of air-break contactors is many times that of comparable oil-immersed tips.

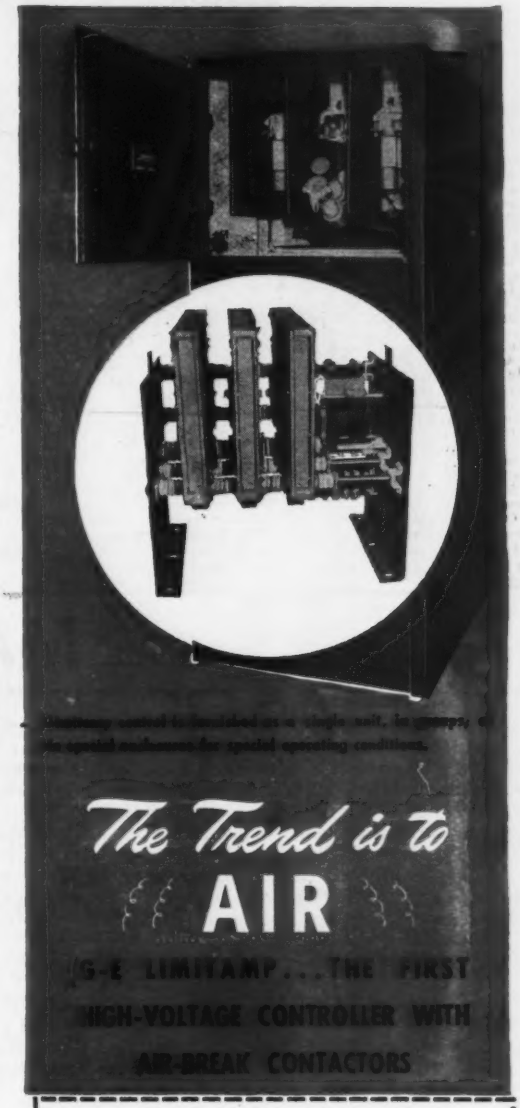
EJ-2 fuses are easy to replace, and they can't wear out. When you install a new fuse, you know your short-circuit protective device is in perfect condition.

OVERLOAD AND UNDERVOLTAGE PROTECTION

Isothermic overload relays, accurately calibrated against actual motor characteristics, guard the motor against overheating from sustained loads or single phasing.

FACTORY-ASSEMBLED CONTROL

Factory-assembled in one cabinet, Limitamp is easy to install, easy to co-ordinate with other control, saves space, and improves the appearance of your plant.



GENERAL ELECTRIC

Apparatus Dept.,
General Electric Company, P676-246
Schenectady 5, New York

Please send me Bulletin GEA-4247, describing Limitamp control.

Name.....

Company.....

Address.....

Wool Tares, heavy...	4.75	"	5.00
New Burlap Cuttings	6.00	"	6.50

Old Papers

(F. o. b. Phila.)
Mill Prices, Baled

No. 1 Hard White Envelope Cuts, one cut	$100.00	to	$115.00
No. 1 Hard White Shavings, unruled..	100.00	"	—
Soft White Shavings, one cut	90.00	"	95.00
White Blank News..	70.00	"	75.00
Soft White Shavings.	80.00	"	—
No. 1 White Ledger.	80.00	"	85.00
Ledger, Colored	67.00	"	70.00
No. 1 Heavy Books & Magazines	24.00	"	26.00
Overissue Magazines..	nominal		
New Manila Envelope Cuttings	80.00	"	—
No. 1 Assorted Old Kraft	60.00	"	65.00
No. 1 Mixed Paper..	11.00	"	12.00
Box Board Cuttings..	10.00	"	11.00
Kraft Corrugated Cuttings	90.00	"	100.00
Old Corrugated	24.00	"	26.00
Overissue News	20.00	"	22.00
No. 1 News	13.00	"	15.00

BOSTON

Old Papers

(F.o.b. Boston)
Mill Prices, Baled

No. 1 Hard White Shavings, unruled..	6.25	to	6.75
No. 1 Hard White Shavings, ruled	6.00	"	6.50
Soft White Shavings, Misc.	5.25	"	5.50
No. 1 Fly Leaf Shavings	1.75	"	1.85
No. 2 Fly Leaf Shavings	1.65	"	1.75
No. 1 Groundwood Fly Leaf Shavings	1.75	"	2.00
No. 2 Groundwood Fly Leaf Shavings	1.50	"	1.75
Mixed Colored Shavings	2.00	"	2.25
New Manila Envelope Cuts, one cut	4.50	"	4.75
Hard White Envelope Cuts, one cut	6.00	"	6.50
Triple Sorted No. 1 Brown Soft Kraft	3.75	"	4.00
Mixed Kraft Env. & Bag Cuttings	4.00	"	4.25
Kraft Envelope Cuttings	3.75	"	4.00
No. 1 Heavy Books & Magazines	1.25	"	1.75
New Manila Envelope Cuts, one cut	—	"	—
New Manila Envelope Cuttings	4.00	"	4.25
White and Colored Tabulating Cards	4.00	"	4.50
Groundwood Tabulating Cards	1.50	"	1.75
White Blank News..	2.25	"	2.50
No. 1 Assorted Old Kraft	3.50	"	—
No. 1 Mixed Paper..	.65	"	.75
Overissue News	1.00	"	1.25
Box Board Cuttings.	.60	"	.70
New Corrugated Cuttings, Kraft	2.75	"	3.00
Old Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	1.10	"	1.25
Jute Corrugated Cuttings	1.07½	"	—
Paper Strings	2.00	"	2.25

Bagging

(F. o. b. Boston)

Gunny Bagging—			
Foreign	—	to	4.75
Domestic	—	"	4.75
Sisal Rope No. 1	6.00	"	—
Sisal Rope No. 2	5.50	"	—
Mixed Rope	5.25	"	—
Mixed Strings	2.00	"	2.50
Transmission Rope—			
Foreign	(nominal)		
Domestic	3.00	"	3.50
Manila Rope—			
Foreign	(nominal)		
Domestic	6.23	"	—
Soft Jute Rope	5.00	"	5.25
Jute Carpet Threads.	6.00	"	—
Bleachery Burlap	8.50	"	9.00
Scrap Burlap—			
Foreign	—	"	4.75
Domestic	—	"	4.87½
South America	5.25	"	—
Wool Tares—			
Foreign	4.75	"	—
Domestic	4.75	"	—
Aust. Wool Pouches..	5.00	"	5.25
New Zealand Wool Pouches	5.25	"	5.50
New Burlap Cuttings	6.00	"	6.50
Heavy Baling Bagging	5.25	"	5.75
Paper Mill Bagging..	3.50	"	3.75
No. 1 Roofing Bagging	1.75	"	—

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints.	.08	to	—
Fancy Percales	.07½	"	.08
New White No. 1..	.11	"	.11½
New Light Flannelettes	.08	"	.08½
Canton Flannels, Bleached	.10	"	.11
Underwear Cutters, Bleached	.10	"	.11
Underwear Cutters, Unbleached	.11	"	.12
Silesias No. 1	.08	"	.08½
New Black Silesias..	.05	"	—
Red Cotton Cuttings.	.05	"	—
Blue Overalls	.08½	"	.09
Soft Unbleached	.11	"	.12
Blue Cheviots	.08½	"	.09
Fancy	.06	"	—
Washable	.06	"	—
Khaki Cuttings	.06½	"	.07 lb
Corduroy	.03½	"	—
Khaki Canvas	.06½	"	.06¾
B. V. D. Cuttings	.10½	"	.11¼

Domestic Rags (Old)

(F. o. b. Boston)

White No. 1—			
Repacked	3.80	to	—
Miscellaneous	3.20	"	—
White No. 2—			
Miscellaneous	2.65	"	—
Twos and Blues, Repacked	2.20	"	—
Old Blue Overalls	2.25	"	2.50
Thirds and Blues, Repacked	2.20	"	—
Miscellaneous	1.80	"	—
Black Stockings	3.50	"	4.00
Roofing Stock—			
No. 1	2.00	"	—
No. 2	1.75	"	2.00
No. 3	1.35	"	—
No. 4	1.35	"	—
No. 5, Quality A..	1.35	"	—
Quality B..	1.20	"	—
Quality C..	.95	"	—
Old Manila Rope	6.00	"	—

Foreign Rags

(F. o. b. Boston)

Canvas	(nominal)
Dark Cottons	(nominal)
Dutch Blues	(nominal)
New Checks and Blues	(nominal)
Old Fustians	(nominal)
Old Linsey Garments	(nominal)
New Silesias	(nominal)

CHICAGO

Waste Paper

(F. o. b. Chicago)
Mill Prices, Baled

Shavings—			
No. 1 Hard White Envelope Cuts, one cut	$110.00	to	$120.00
No. 1 Hard White Shavings, unruled..	105.00	"	115.00
No. 1 Soft White Shavings	80.00	"	95.00
No. 1 White Ledger..	55.00	"	65.00
No. 1 Heavy Books & Magazines	40.00	"	43.00
White Blank News..	65.00	"	—
Mixed Kraft Env. & Bag Cuttings	75.00	"	85.00
No. 1 Assorted Old Kraft	45.00	"	55.00
Overissue News	28.00	"	—
No. 1 News	17.00	"	19.00
No. 1 Mixed Paper..	13.00	"	14.00
Old Corrugated	25.00	"	27.00
Mill Wrappers	22.00	"	—

MARKETS

BLANC FIXE—Market unchanged. Supplies tight. Pulp is currently quoted at $90 per ton in barrels, car lots at works; by-product $72.50 per ton, car lots at works.

BLEACHING POWDER—Active demand. Market continues tight. Shortage of metal containers. Prices range from $3.75 to $4 per 100 pound drums, l.c.l., works.

CASEIN—Market firm. Domestic production declined. Stocks diminished. Buying strong. Current prices on processed acid precipitated casein at 32 to 33 cents per pound for domestic grades and 30 to 31½ cents for imported grades, f.o.b. shipping point.

CAUSTIC SODA—No improvement in supply condition. Market extremely tight with no indication of relaxed demand. Contracts being renewed on allocation policy. Solid caustic is reported at $2.85 per cwt.; flaked and ground is quoted at $3.25 per cwt. in 400 pound drums, $3.75 per cwt. in 100 pound drums—car lots at works; liquid 50% in tank cars at $2.25 per cwt.; liquid 73% in tank cars at $2.35 per cwt. at works.

CHINA CLAY—Domestic grades in good supply. Market steady. Domestic filled clay is currently $10 to $13 per ton, car lots, coating clay is $15 to $30, imported clay from $18 to $35 export warehouse.

CHLORINE—Supply situation unimproved. Tank car shortage hampering movement. Demand sustained. Scarcity is diverting orders to substitutes such as bleaching powder, ferric chloride, et cetera. Prices unchanged. Currently quoted at $2.25 per cwt. in single unit tank cars, and at $2.55 to $3.75 per cwt. in multi-unit tank cars, f.o.b. works.

ROSIN—Market easier. Prices fluctuating. Receipts heavier as scrape crop comes in. Gum rosin in drums per 100 pounds net in yard, New York car lots B, D, $9.75; E, $10.50; F, G, H, I, K, M, N, $11; WG, $11.05; WW, $11.15. Wood rosin, per 100 pounds, net, f.o.b., l.c.l., N. Y., B, $6.45; FF, $7.95; G, H, I, K, M, $10.22; N, $10.27; WG, $10.75; WW, $10.86; X, $10.96.

SALT CAKE—Demand continues ahead of supply with slight improvement in shipments. Prices remain unchanged. Domestic salt cake is quoted at $20 to $26.

SODA ASH—Slight improvement in supply. Demand increased. Market tight. Mills substituting sodium bicarbonate to relieve situation. Current prices, car lots, per 100 pounds, are as follows: in bulk, $1.10; in paper bags, $1.30; and in barrels, $1.80.

SODIUM BICARBONATE—Supply shorter but still ample. Shortage of box cars delays shipment. Reported at $1.85 per cwt. paper bags, carload lots.

STARCH—Prices strong and unchanged. Market active both domestic and export. Supply tight. Production at capacity. Market sold well ahead. Pearl grade quoted at $7.02 per 100 pounds, powdered starch at $7.23 per 100 pounds, car lots, New York.

SULPHATE OF ALUMINA—Supply steady. Prices unchanged. The commercial grades are quoted at from $1.15 to $1.30 per 100 pounds, in bags, car lots, f.o.b. works. Iron free is quoted at $2 per 100 pounds in bags, car lots, at works.

SULPHUR—Demand steady. Supplies ample. Annual contracts are quoted at $16 to $18 per long ton, f.o.b. mines; the price f.o.b. at Gulf ports is $17.50 to $19.50 per long ton.

TALC—No change in domestic market. Demand far in excess of supply. Domestic grades are currently quoted at $21 per ton in mines; Canadian at $35 and up per ton. All prices in car lots.

SAVINGS AND SMILES AT MANY A MILL

When you discover ways to cut conversion costs you bring smiles to management. At mills operating on an employee incentive basis (and there are many such mills) you also bring smiles to the personnel. Because as conversion costs come down profits go up.

Orr-Chem felts reduce cost of conversion in several direct ways.

1. *They wear longer, and felt costs per ton produced come down.*
2. *There is less down time for wash-ups—just that much more production.*

Less direct but also important benefits are the ease with which Orr-Chems go on and set to the machine, greater freedom from shrinkage or stretch or blowing or matting.

The number of mills converted to Orr-Chem treated felts in a matter of months is indeed impressive, and new converts are made almost daily. These mills—and their workers—are all conversion conscious.

If you have not tried some Orr-Chems you're missing something. Become conversion conscious and forward your specifications.

ORR-CHEM

THE ORR FELT & BLANKET CO., PIQUA, OHIO

Congress Opens Bids On First Quarter Needs

(Continued from page 7)

Central Ohio Paper Co. (100,000 pounds only—lot 19 or 20) ..... .1163c
Paper Corp. of America ..... .157c
Marquette Paper Corp. ..... .1625c
Paper Corp. of U. S. (300,000 pounds only) ..... .1415c
R. P. Andrews Paper Co. (200,000 pounds only) ..... .1467c

Antique Book

No. 22—100,000 lbs., 25x38—90 and 120; flat, cut 32x42, 33x43, and 38x50 ins.

Mead Sales Co. (50,000 pounds only) .1088c
Paper Corp. of America (90 pounds) . .162c
Paper Corp. of America (120 pounds) .152c
Marquette Paper Corp. ..... .146c

50% Lightweight Machine-Finish Book

No. 24—50,000 lbs., 25x38—60; flat, cut 30x43 and 38x48 ins., min. order 10,000 lbs.

Walker Goulard Plehn Co. (Minimum order 20,000 pounds) ..... .23c
Paper Corp. of U. S. ..... .1945c

50% Antique Book

No. 27—20,000 lbs., 25x38—80; flat, cut 22¾x31 ins., shall be suitable for writing on with ink.

Whitaker Paper Co. ..... .2216c
Wilcox Walter Furlong Paper Co. .. .23c
Paper Corp. of U. S. ..... .1986c
Howard Paper Mills, Inc. (Aetna Div.) .2217c

Supercalendered Book

No. 33—150,000 lbs., 25x38—90; flat, cut any size, min. width 24 ins., max. width 48 ins.

No. 34—50,000 lbs., 25x38—90; rolls, 28½ and 38 ins. wide (3-inch fiber cores).

Mead Sales Co. ..... .1055c
R. P. Andrews Paper Co. ..... .0885c

Coated Book

No. 37—400,000 lbs., 25x38—100; flat, cut any size, min. width 24 ins., max. width 48 ins.

Barton, Duer & Kock Paper Co. .... .1161c

No. 38—40,000 lbs., 25x38—120; flat, cut any size, min. width 24 ins., max. width 48 ins.

Barton, Duer & Koch Paper Co. ..... .108c

No. 40—80,000 lbs., 25x38—140; flat, cut 32x42, 38x48, 39x50, and 41x52 ins.; the grain to run lengthwise of the sheet.

Consolidated Water Power & Paper Co. .10983c

Chemical Wood Mimeograph, White and Colored

No. 45—250,000 lbs., white, No. 40; flat, cut 28½x34½, 32½x42½, and 38x48½ ins. Grain: Size 28½x34½ ins. to run the 28½ in. way; size 32½x42½ to run the 42½ in. way; size 38x48½ ins. to run the 38 in. way.

Mead Sales Co. ..... .1123c
Paper Corp. of America ..... .152c
Marquette Paper Corp. ..... .157c
R. P. Andrews Paper Co. ..... .1019c
Barton, Duer & Koch Paper Co. ..... .119c

25% Mimeograph

No. 47—150,000 lbs., No. 40; flat, cut 28½x34½, 32½x42½, 34½x44, 38x48½, and 40½x42½ ins. Grain: Size 28½x34½ ins. to run the 28½ in. way; sizes 32½x42½ and 40½x42½ ins. to run the 42½ in. way; size 38x48½ ins. to run the 38 in. way.

Whitaker Paper Co. ..... .1986c
Cauthorne Paper Co. (80,000 pounds only) ..... .1625c
Cauthorne Paper Co. (Balance in excess of 80,000 pounds) ..... .1865c
Old Dominion Paper Co. ..... .1616c
Paper Corp. of U. S. ..... .172c
R. P. Andrews Paper Co. ..... .1865c
Howard Paper Mills (Aetna Div.) .. .1519c

Duplicator Copy Paper, Liquid Process, White and Colored

No. 48—200,000 lbs., White, No. 40; flat, cut 32x42 and 34x44; the grain to run lengthwise of the sheet.

Paper Corp. of America ..... .1545c
Marquette Paper Corp. ..... .162c

No. 49—20,000 lbs., pink, yellow, green, and blue; No. 40; flat, cut 32x42 and 34x44 ins.; the grain to run lengthwise of the sheet.

Paper Corp. of America ..... .162c

Blue U S M O Safety Writing

No. 50—100,000 lbs., No. 32; rolls, 22 ins. wide, 24 ins. in diameter (3-inch fiber cores).

D. L. Ward Co. ..... .1881c

Chemical Wood Writing, White and Colored

No. 53—50,000 lbs., white, No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.

Paper Corp. of America ..... .159c
Marquette Paper Corp. ..... .163c
D. L. Ward Co. ..... .1504c
R. P. Andrews Paper Co. ..... .1107c

No. 54—500,000 lbs., white, No. 40, flat, cut any size, min. width 21 ins., max. width 48 ins.

Paper Corp. of America ..... .154c
Marquette Paper Corp. ..... .157c
D. L. Ward Co. ..... .1432c
R. P. Andrews Paper Co. ..... .1049c

No. 55—500,000 lbs., white, No. 32; rolls, min. width 16 ins., max. width, 48 ins. (3-inch fiber cores).

Paper Corp. of America ..... .149c
Walker Goulard Plehn Co. ..... .1525c
Marquette Paper Corp. ..... .1525c
R. P. Andrews Paper Co. ..... .1005c

No. 56—200,000 lbs., white, No. 40; rolls, min. width 16 ins., max. width 48 ins. (3-inch fiber cores).

Mead Sales Co. ..... .102c
Paper Corp. of America ..... .144c
Walker Goulard Plehn Co. ..... .1475c
Marquette Paper Corp. ..... .1465c
R. P. Andrews Paper Co. ..... .0946c

No. 58—100,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, Nos. 32 and 40; flat, cut any size, min. width 21 ins., max. width 48 ins. Min. order, one color, 10,000 lbs.

Paper Corp. of America (32 pounds) .1665c
Paper Corp. of America (40 pounds) .1615c

No. 59—150,000 lbs., blue, buff, green, pink, salmon, and yellow, No. 32; rolls, 38 in. (3-inch fiber cores).

Paper Corp. of America ..... .1565c

Chemical Wood, Writing (Titanium Dioxide Filled)

No. 61—500,000 lbs., No. 32; flat, cut 34x44 ins.

Wilcox Walter Furlong Paper Co. (250,000 pounds only) ..... .1685c
Paper Corp. of America ..... .169c
Barton, Duer & Koch Paper Co. .... .1377c

Chemical Wood Manifold, White and Colored

No. 72—50,000 lbs., white, No. 18; flat, cut 21x32, 28x34, 32x42, and 34x44 ins.

Cauthorne Paper Co. ..... .182c
Old Dominion Paper Co. (Other colors) ..... .1779c
R. P. Andrews Paper Co. (Other colors) ..... .1833c
Frank Parsons Paper Co. ..... .1777c

50% Manifold White and Colored

No. 76—25,000 lbs., white, No. 18; flat, cut 21x32, 28x34, 32x42, and 34x44 ins.

Whitaker Paper Co. ..... .3125c
Old Dominion Paper Co. ..... .28238c
Walker Goulard Plehn Co. ..... .288c
Paper Corp. of U. S. ..... .297c
R. P. Andrews Paper Co. ..... .29c
Barton, Duer & Koch Paper Co. .... .2875c

No. 78—10,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 18; flat, cut 28x34 and 34x44 ins. Min. order, one color, 5,000 lbs.

Whitaker Paper Co. (Yellow) ..... .3325c
Whitaker Paper Co. (Other Colors) .3225c
Old Dominion Paper Co. ..... .28979c
Walker Goulard Plehn Co. ..... .303c
Paper Corp. of U. S. ..... .304c
R. P. Andrews Paper Co. ..... .295c
Barton, Duer & Koch Paper Co. ..... .2925c

25% Bond, White and Colored

No. 106—100,000 lbs., white, No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.

Central Ohio Paper Co. ..... .2065c
Barton, Duer & Koch Paper Co. .. 1965c
Howard Paper Mills(Aetna Div.) .. .1793c

No. 107—100,000 lbs., No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.

Barton, Duer & Koch Paper Co. ... .2065c
Howard Paper Mills(Aetna Div.) .. .1793c

No. 108—150,000 lbs., white, No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.

Bulkley Dunton & Co., Inc. ..... .2065c
Howard Paper Mills(Aetna Div.) .. .1793c

No. 109—150,000 lbs., No. 40; flat, cut any size, min. width 21 ins., max. width 48 ins.

Whitaker Paper Co. ..... .1965c
Howard Paper Mills (Aetna Div.) ... .1693c

No. 113—40,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.

Howard Paper Mills (Aetna Div.) ... .1863c

Chemical Wood White Ledger

No. 150—40,000 lbs., No. 48; flat, cut any size, min. width 17 ins., max. width 48 ins.

Paper Corp. of America ..... .147c
Walker Goulard Plehn Co. ..... .155c
Marquette Paper Corp. ..... .167c

No. 153—150,000 lbs., white, No. 88; flat, cut any size, min. width 17 ins., max. width 48 ins.

Paper Corp. of America ..... .147c
Walker Goulard Plehn Co. ..... .1495c
Marquette Paper Corp. ..... .167c

25% Ledger, White and Colored

No. 154—200,000 lbs., white, No. 48; flat, cut 28x34, 32x42, 34x44 and 38x48 ins. Min. order, 5,000 lbs.

Paper Corp. of U. S. ..... .1908c
Frank Parsons Paper Co. ..... .1821c
Howard Paper Mills (Aetna Div.) ... .1807c

No. 156—40,000 lbs., white, No. 88; flat, cut 28x34, 32x42, 34x44, and 38x48 ins. Min. order 5,000 lbs.

Paper Supply Co. ..... .1846c
Paper Corp. of U. S. ..... .1908c
Howard Paper Mills (Aetna Div.) ... .1807c

100% White Ledger

No. 176—10,000 lbs., No. 48; flat, cut 28x34, 32x42, and 34x44 ins.; min. order 4,000 lbs.

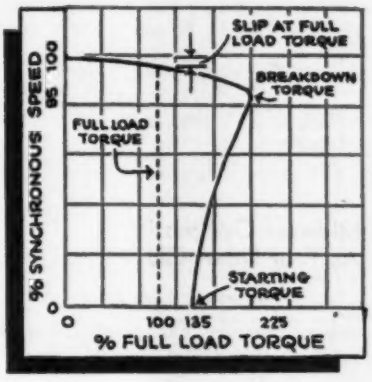
Wilcox Walter Furlong Paper Co. ... .3255c
Paper Corp. of U. S. ..... .319c
R. P. Andrews Paper Co. ..... .3465c
Stanford Paper Co. ..... .345c
Barton, Duer & Koch Paper Co. .... .33c

Antique-Finish Cover, White and Colored

No. 203—50,000 lbs., 20x26—100; blue, buff, dawn, quaker drab, terra cotta, gray, brown, green, gobelin blue, granite, tea, and yellow; flat, cut 25¼x39 ins., with projecting colored-paper marker between each 500 sheets; min. order, one color, 5,000 lbs.

Whitaker Paper Co. ..... .1179c

Here's One Way to Choose Motors...



Sure, Your Local "Swami" can pick a motor for you in an instant! But if you want motor counsel you can *bank* on . . . you'll consult a reputable motor manufacturer. In place of crystal-ball gazing, he'll advise you to follow *practical* and *orderly* steps in arriving at *right* motor selection. For example...

First, Study Your Power Supply . . . voltage, frequency, number of phases; the p.f. required by your utility. Judicious selection will help balance your motor capacity . . . lower power costs. And check the voltage regulation — choose motors with enough torque to start and carry the load. Next . . .

Study the Driven Machine and surroundings. What hp? What starting torque? Will you need a horizontal or vertical motor — direct-connected, belt-driven or gear-operated? How about surroundings — ambient temperature, moisture, corrosion, dust. Each calls for a particular type of protection. Now . . .

Study Your Motor Characteristics. *A-c motors?* For most jobs they're satisfactory and economical. *D-c motors?* For wide speed range; for fast acceleration or reversal they may prove your best bet. *Synchronous motors?* When applicable they give you low-cost p.f. correction. You're *still* undecided? Call in your nearby Allis-Chalmers motor expert. He'll be glad to help you decide—with recommendations backed by 50 years of motor-building!

Wise Motor Choice Saves Power; Ups Profit!

YES, CRYSTAL-BALL GAZING methods are out when you're trying to get *maximum* return on your electric motor investment. Slip-shod selection usually results in over-capacity, high power and maintenance bills — the kind of costs that in the competitive era of tomorrow you won't be able to afford!

That's why it pays to know more about *all* types of motors . . . their operation . . . limitations . . . maintenance. And there, too, is where your Allis-Chalmers motor expert can be of real help! ALLIS-CHALMERS, MILWAUKEE.

A 2328

1847 1947 A CENTURY OF SERVICE to Industry THAT MADE America Great

ALLIS-CHALMERS

One of the Big 3 in Electric Power Equipment-
Biggest of All in Range of Industrial Products

Wilcox Walter Frulong Paper Co. (light colors) ..... .1705c
Wilcox Walter Furlong Paper Co. (Dark colors) ..... .1785c
Wilcox Walter Furlong Paper Co. (Granite) ..... .1925c
Paper Corp. of America ..... .152c
Paper Corp. of U. S. ..... .14c
R. P. Andrews Paper Co. ..... .1347c

50% Laid Cover, Colored

No. 206—70,000 lbs., blue, cream, white, gray, and green; 20x26—130 and 200; flat, cut 25¼x39 and 28x41 ins. with projecting colored-paper marker between each 500 sheets; min. order, one color, 2,000 lbs.

No. 2 Kraft

No. 217—80,000 lbs., 24x36—80 to 160; flat, cut any size, in wrapped bundles.
Enterprise Paper Co. ..... .1575c

No. 218—40,000 lbs., 24x36—80 to 160; cut any size, folded (25 sheets per fold), in wrapped bundles.

White Gummed

No. 252—50,000 sheets, No. 40; flat, cut 22x34 ins., min. order 25,000 sheets.
Old Dominion Paper Co. (Per M sheets) $23.598
Paper Corp. of U. S. (Per M sheets) $23.60
R. P. Andrews Paper Co. (Per M sheets) $22.40
Stanford Paper Co. (Per M sheets) $23.52

High-Finish Chemical Wood Manila Tag

No. 271—40,000 lbs., 24x36—280; flat, cut any size, min. width 24 ins., max. width 38 ins.
Old Dominion Paper Co. ..... .10248c
Walker Goulard Plehn Co. (Minimum order 10,000 pounds) ..... .1475c
Marquette Paper Corp. ..... .13c
Paper Corp. of U. S. ..... .1311c

Railroad Board, White and Colored

No. 305—10,000 lbs., buff, flat, 22x28 ins., 14-ply, each 50 sheets fully banded. Min. order, 5,000 sheets.
Old Dominion Paper Co. (Per M sheets—Price at time of shipment. Not to exceed 8% increase) $95.32
Stanford Paper Co. (Per M sheets) $97.27
Barton, Duer & Koch Paper Co. (Per M sheets $104.00

Wood Cardboard, Colored

No. 306—100,000 lbs., buff, 22½x28½—150; rolls, 20 ins. wide (3-inch fiber cores).
Walker Goulard Plehn Co. ..... .1275c
Barton, Duer & Koch Paper Co. .... .1375c

No. 308—10,000 lbs., melon, 22½x28½—184; flat, cut 20x30 ins., in wrapped bundles with projecting colored-paper marker between each 100 sheets.

No. 309—150,000 lbs., blue, buff, gray, green, melon, pink and yellow; 22½x28½—184; rolls, 20 inches wide (3-inch fiber cores).
Walker Goulard Plehn Co. ..... .1325c

United States Postal Card Paper

No. 325—3,500,000 lbs., 22½x28½—188; rolls, 33 ins. wide, 36 ins. diameter (6-inch iron or metal capped returnable fiber cores).
Whitaker Paper Co. (Total tonnage lots 325, 326 and 327, 2,750,000 pounds.) ..... .0832c
R. P. Andrews Paper Co. (Total tonnage lots 325, 326 and 327, 2,000,000 pounds.) ..... .084c

No. 326—3,500,000 lbs., 22½x28½—188; rolls, 33 ins. wide, 36 ins. in diameter (6-inch iron or metal capped returnable fiber cores).
Whitaker Paper Co. (Total tonnage lots 325, 326 and 327, 2,750,000 pounds.) ..... .0832c
R. P. Andrews Paper Co. (Total tonnage lots 325, 326 and 327, 2,000,000 pounds.) ..... .084c

No. 327—3,500,000 lbs., 22½x28½—188; rolls, 22 or 33 ins. wide, and 36 ins. in diameter (6-inch iron or metal capped returnable fiber cores).
Whitaker Paper Co. (Total tonnage lots 325, 326 and 327, 2,750,000 pounds.) ..... .0832c
R. P. Andrews Paper Co. (Total tonnage lots 325, 326 and 327, 2,000,000 pounds.) ..... .084c

Binder's Board, No. 1 Quality

No. 366—40,000 lbs., hard-rolled flat, to trim 25x30 ins., Nos. 16, 18, 20, 25, 30, and 40.
R. P. Andrews Paper Co. ..... .0569c
Barton, Duer & Koch Paper Co. .... .0575c

No. 367—40,000 lbs., hard-rolled, No. 1, 25¾x30¾ ins., Nos. 12 and 20, flat, to trim 34x44 ins.
R. P. Andrews Paper Co. ..... .0569c

Binder's Board, Best Quality

No. 368—15,000 lbs., hard-rolled flat, to trim 20x30 ins., and 22x28 ins., Nos. 18, 20, 25, 30, 35, 40 and 45. Min. order, 5,000 lbs.
Consolidated Paper Co. (Thickness .015 to .059, incl.) ..... .0831c
Consolidated Paper Co. (Thickness .050 to .058 incl.) ..... .0844c
Consolidated Paper Co. (Thickness .045 to .049, incl.) ..... .0856c
R. P. Andrews Paper Co. ..... .096c

Midwest Optimistic As Year Nears Close

(Continued from page 7)

tionary pressure and in recognition of the fact that the paper industry will need satisfied customers for many years to come."

Meanwhile, the waste paper trade reported a steadiness in the market with an unexpectedly heavy pre-Christmas snowfall having little effect yet on the prices but expected to further reduce collections. Dealers paying prices per hundred weight in the Chicago territory showed miscellaneous mixed at .20 to .25; folded news at .40 to .50; old containers at .60 to .70; books and magazines at .80 to .90; white news blanks at $1.95 to $2.20; hard white shavings at $3 to $3.50. Mill paying prices per ton for No. 1 news were said to be $18 to $20; $13 for No. 1 mixed and $23 for No. 1 old corrugated.

Thilmany Old Timers Elect New Slate

KAUKAUNA, Wis. — The Thilmany Quarter Century club elected Martin Holmes second vice-president December 10 at the Elks' club. Other officers each year automatically advance in position. Fred Goetzman, former vice-president, becomes president, and Otto Trettin becomes first vice-president. Jack Leddy is the retiring president. William Voie is secretary.

Carl Stansbury, Thilmany president, presented William Hoolihan with an award for 40 years of meritorious service.

Sees Priority Need In Soda Ash Demand

WASHINGTON — Spot priority assistance in delivery of needed equipment or material may have to be given to soda ash and caustic soda producers if increased demand forces expansion of production facilities, Secretary of Commerce Harriman told a Congressional Committee last week, in explaining his request for restoration of many wartime controls.

Explaining the need for priority and other controls over steel and various other commodities, Harriman said:

"Soda ash and caustic soda have in the past presented serious bottlenecks in production of such basic commodities as textiles, pulp and paper, among others.

"Although the supply position of soda ash and caustic soda has improved steadily during 1947, the supply-demand balance is still precarious and any substantial increase in the demand by the industries aforementioned might possibly cause a recurrence of the shortage. For example, an increased supply of glass and paper containers resulting from steel conservation measures would require more soda ash."

In view of this, he said, increased productive facilities may be needed, and if so, he would require the priority authority.

Chemipulp Withdraws Suit As Hudson Case is Settled

WATERTOWN, N. Y.—A suit brought in 1943 by Chemipulp Process, Inc. against Hudson Pulp & Paper Corporation, charging infringement of three of Chemipulp's hot acid cooking and recovery patents by reason of operations at Hudson's Kennebec Pulp & Paper Company plant, at Augusta, Maine, has been settled. The settlement provides that, while Hudson denies infringement, the case shall be dismissed, and, in return for a cash payment to Chemipulp, no further claim will be made by Chemipulp as to the operations at the Kennebec mill complained of under the patents sued upon or any patents owned by Chemipulp at the time suit was brought. Hudson is henceforth free to use at the Kennebec plant Chemipulp's patents covering methods and apparatus for hot acid cooking and recovery.

Central States Paper Holds Sales Conclave

ST. LOUIS—Central States Paper & Bag Company this week held a sales convention beginning Sunday, December 7 and ending Wednesday, December 10. Forty-two salesmen from all parts of the country attend this meeting as well as 12 city salesmen. New phases of the company's expanding business were discussed. A banquet on Tuesday night at the Park Plaza hotel, highlighted the meeting.

WHAT'S EFFECTIVE SLIME CONTROL WORTH TO YOU?

You can now control the growth of bacteria and fungi in your stock systems *effectively* and at a remarkably low cost with G-4*, Givaudan's bactericide and fungicide.

G-4 inhibits the formation of slime effectively, even in systems containing such bacterial nutrients as starch and casein. It is already helping many paper and paperboard mills keep their stock lines cleaner and reduce the bacterial counts in their finished sheets.

If you make paper or paperboard used for packaging foods, the non-toxicity of G-4 offers you a special advantage. You will also find it highly efficient as a preservative for finished paper products subject to moist or humid conditions. And as a mildew preventive in felts, it has increased running time 45 to 500% in different plants and on various types of machines!

G-4 is low in cost because it is effective in low concentrations. It offers you immediate returns in economy and efficiency. Write for samples, prices and complete information.

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Industrial Products Division

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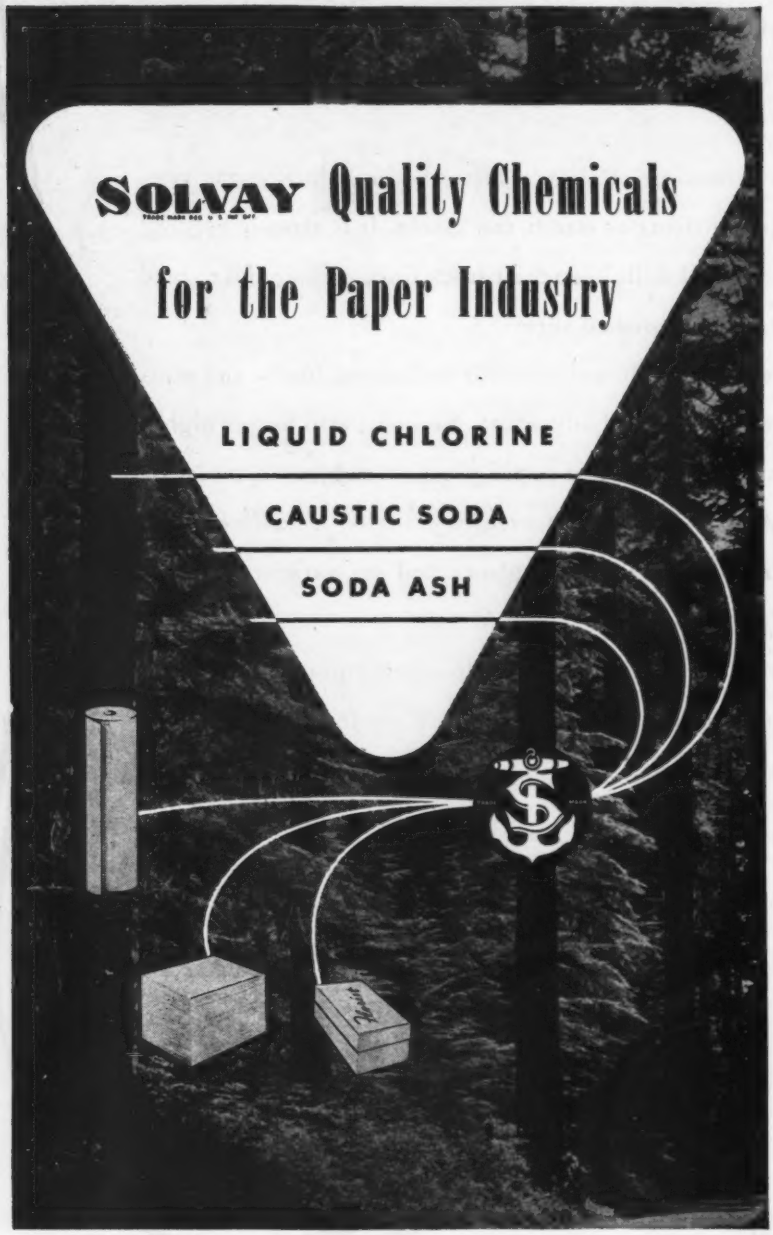
Loroco Lines Up Bird Dog Pack

READING, Ohio — The Distinguished Order of Bird Dogs, a newly organized traternal order for paper merchants formed during the recent N.P.T.A. Convention in Chicago, is receiving wide acceptance throughout the nation. It is a national society of selected paper merchants whose purpose is to flush, point, retrieve, or otherwise bag additional volume of business, without investment, in cooperation with Loroco Industries, Incorporated, this city.

In early December, the first edition of the Bird Dog bulletin will be published. Loroco will then formally disclose plans to assist the jobber and his salesmen to become charter members of the Distinguished Order of Bird Dogs. Loroco Industries also intends to keep the paper merchant informed of new developments through paid advertisements in the leading trade journals.

Crane Distributes Cash For Staff Suggestions

DALTON, Mass. — During October and November, Crane & Company, Inc., paid a total of $317.05 in cash awards to employes for submitting acceptable suggestions. Altogether, there were 22 accepted suggestions submitted by 17 employes.



SOLVAY SALES DIVISION Allied Chemical & Dye Corporation 40 Rector St., New York 6, N. Y.

OBITUARY

Burt G. Stockwell

LOCKPORT, N. Y.—Burt G. Stockwell, chairman of the board of directors of the Lockport Felt Company, died on December 7 in the Lockport City Hospital. Mr. Stockwell, who was 79 years old, had been ill for a month before his death. He had for many years been a director of the Lockport Felt Company, long serving the paper making industry.

From 1935 to 1945, Mr. Stockwell was president of Lockport Felt, and since 1945 he has been chairman of the board. He served in public as well as private office, and his long career was one of uninterrupted usefulness since he was admitted to the New York State Bar to practice law in 1892.

Lawrence G. Preston

NEW YORK — Lawrence G. Preston, who resided at 277 Park Avenue, New York, and had been associated in various capacities with the corn refining industry for over 35 years, died Wednesday, December 10th, at Roosevelt Hospital after a prolonged illness, at the age of 62.

Mr. Preston was born in San Francisco but had spent most of his business life in the East. Among the companies with which he had been associated as a sales executive were Snyder Packing Company of Rochester, N. Y., Corn Products Refining Company, Penick & Ford, Ltd., and American Maize-Products Company, all of New York City.

His clubs included Seawane Harbor, Atlantic Beach and St. Nicholas. He was also a member of numerous trade associations. He is survived by his widow, Dorothae Griffin Preston.

J. T. Backus

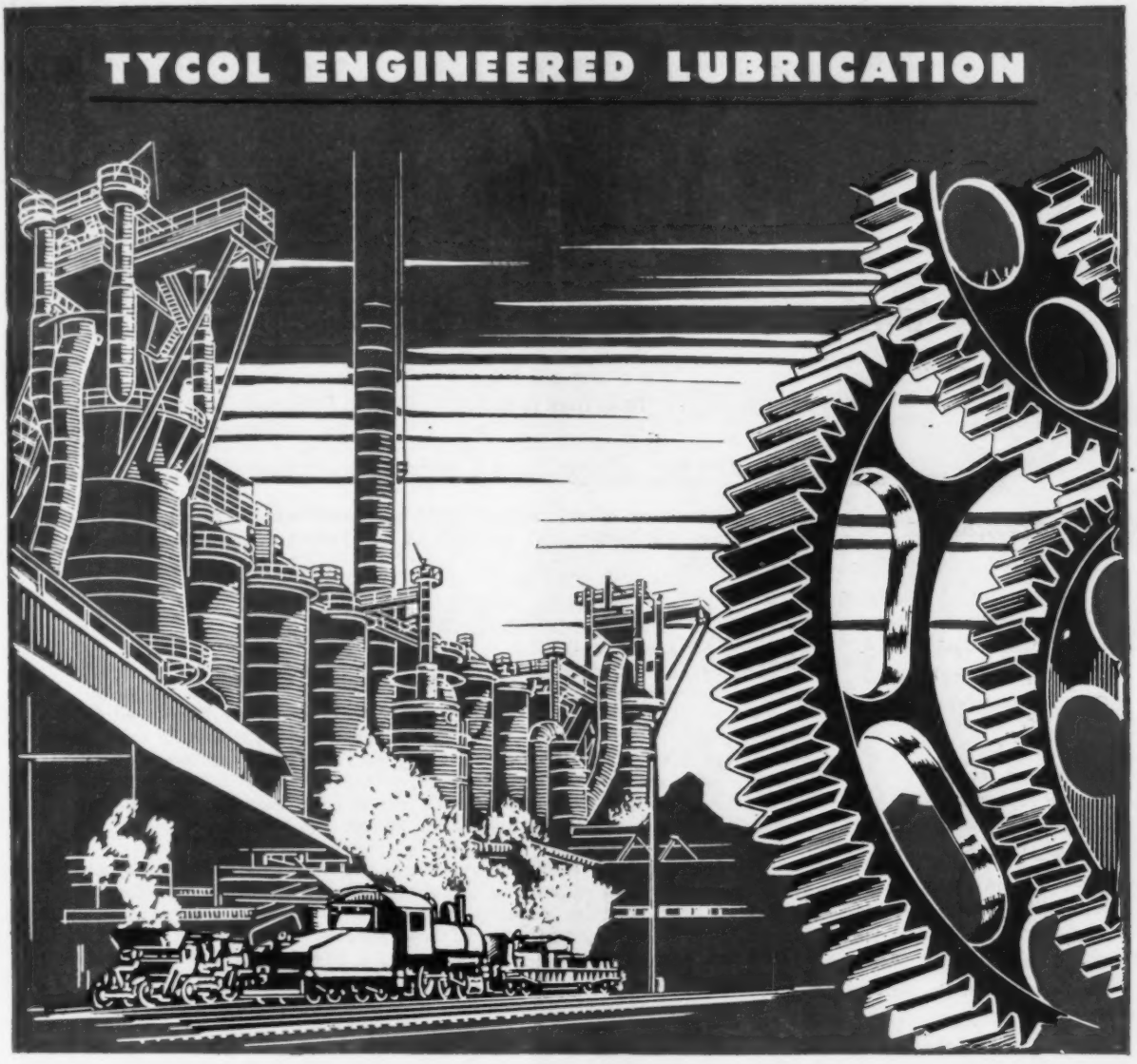
HAMILTON, Ohio—J. T. Backus, special assistant to the director of sales of the Champion Paper and Fibre Company, died at his home on December 5th after a short illness. He had been with Champion for the last twenty years.

Mr. Backus' death takes from the paper industry one of its most prominent figures. He had attained a nationwide reputation for his knowledge of the industry, and had commanded the respect and deep admiration of all those with whom he was associated.

Mrs. Edna Agnew

VANCOUVER, B. C. — Mrs. Edna Agnew, a director of the Pacific Paper Company, died in a hospital at Vancouver recently. She was the wife of the late W. D. D. Agnew, former president of the company and came to Vancouver 37 years ago from London, Ontario.

TYCOL ENGINEERED LUBRICATION



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December, 1947

AN OPEN LETTER TO THE AMERICAN PAPER & BOARD MANUFACTURERS

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Moller & Rothe, Inc.
National Paper & Type Company
Parsons & Whittemore, Inc.
Fred C. Strype, Inc.
Van Reekum Paper Co., Inc.
E. de Vries Company
Walker, Goulard, Plehn Co., Inc.

"I do believe that a well established permanent export trade is most constructive and beneficial and should be given serious attention by our industry."

With these words, "Mr. E. W. TINKER, Executive Secretary of the AMERICAN PULP & PAPER ASSOCIATION," expressed what many paper men have come to accept as their conviction .... many put this into practice by allocating part of their monthly production for export. Once their proven export-distributor has overcome the red tape confronting foreign trade and exchange and credit problems, arranged for shipping, etc., the mill can count on a dependable and steady customer even though 5000 miles away .. in fact, as faithful a customer as the printer, publisher or paper converter on Main Street, U.S.A. Soon the overseas buyer becomes trade name conscious, and our foreign friends want American paper and American manufactured board.

Back in the early 1940's, many paper men said, "The day the war is over, foreign clients will go back to their friends in Europe ... all we are asked to do for your Don Jose's and Abdullah's is to fill in, now that they are cut off from Europe." In view of the 14 million ton annual pre-war production and a steady continued domestic demand for paper, some export inquiries were passed off with, "We have more domestic customers than we can handle today — Tomorrow? Who can tell? Why plan and worry now!" 1948 production will be in excess of 22 million tons. Some doubts arise as to whether domestic demands can absorb this tonnage.

What is the export situation today and what may the American Paper Industry expect? It is true and generally known that foreign printers and paper buyers are harassed b y exchange problems, and political unrest ... and are concerned over the American Foreign Policy. These factors hamper a smooth flow of foreign trade ... this in the face of an increasing demand for American paper and board. As predicted, many small "General export firms with a paper department" have sprung up; many have already fallen by the way-side, and others can be expected to close shop.

The organizations constituting the membership of the United States Paper Exporters Council are well established, some of them planning expansion for 1948. These firms are not "war babies" but, like their mill friends, shouldered a heavy burden and responsibility during the war, trying to keep going the presses and paper converting machines of our friends abroad. Our members were in the export field prior to Pearl Harbor; some of them even before World War I. By virtue of

personal travel and knowledge of the markets of the World, and recognizing that the American Paper and Board Industry has won a permanent place in the export markets, we face the future with confidence and optimism.

We know that prior to World War II, Germany was by far the most important supplier of fine papers abroad .. Scandinavia for coarse papers and board — but also recognize that even prior to the war, the United States' mills exported more fine paper than any of the Scandinavian Countries. Never, however, have United States exports exceeded 2% of our annual production. During the war, many United States' mills stencilled cases and fibre cartons "made in USA" along with strange foreign initials and port marks. Today, hundreds of mill superintendents and foremen see nothing extraordinary when the Finishing Department so stencil their shipments. No so long ago, this gave rise to considerable curiousity in the Finishing Department. The world has become very much smaller ... even to the folks in Paper Town USA.

Contrary to the opinion of many American Manufacturers, Europe, including Scandinavia, with its relatively small production which is not expected to increase materially, harassed by coal and wood and labor problems, cannot be counted upon to feed the world's growing appetite for more paper and board. Many people in foreign lands came to know during the war some of the fine U.S. products which are now becoming part of their economy.

The United States Paper Exporters Council is aware of today's serious problems. These are part of the World problems being discussed in Washington and London. A solution will be found and great opportunities will come. The American Paper Exporter will, with responsibility, meet these opportunities, and looks to the American manufacturer for close cooperation. The future will bring to the American manufacturer a market broader than the boundaries of our great Country. Your market will be the World!

We heartily endorse the following statement made by Mr. Tinker in Chicago last Fall:

> "The base of our foreign trade is there, and it could be tied in very constructively with our industry's expansion program, in a way that would make our world markets a permanent, ever-increasing outlet for our mills and not an over-flow outlet."

UNITED STATES PAPER EXPORTERS COUNCIL, INC.

EQUIPMENT AND SUPPLY NEWS

Heyden Produces New Chemicals

MEMPHIS, Tenn.—Pilot plant production of ortho and para dichlorbenzene, chemicals widely used as industrial intermediates and for mothproofing, is now under way at the Heyden Chemical Corporation plant. Full scale production is expected around January first.

The product list of this plant, one of eight Heyden owns or operates in the U. S. and Canada, now includes chlorine, liquid caustic soda, hydrogen, monochlorbenzene and allied products as well as the two new chemicals.

Production of these two chemicals is expected to be followed before long by Trichlorbenzene, a compound used in transformed oils, and for the protection of wood against insect attack.

The plant here was purchased by Heyden last year from the War Assets Administration and was placed in production in November, 1946. It uses an electrolytic process to obtain chlorine and other chemicals from rock salt, which is the base raw material. The chlorine, with the addition of a catalyst, is passed through benzol to produce the other products.

Leeds-Northrup Issues Micromax Catalog

For instrument men in scientific laboratories and industrial plants, Leeds & Northrup has published a new 16-page catalog called "Micromax Model R—Indicating Recorders and Controllers," which will serve as a handy guide to all their round-chart Micromax instruments.

This publication is not limited to those instruments used to measure any one quantity using any one primary element, but for the first time presents *all* Micromax Model R's regardless of whether they are supplied to measure temperature, through the use of thermocouples, Rayotubes or Thermohms . . . or other quantities such as frequency, gas analysis, electrolytic conductivity, and pH. Included are complete specifications in easy-to-use, tabular form for automatic indicating recorders, and indicating and recording controllers. Among the recording controllers are instruments which provide two-position control or are integral parts of full proportional control systems . . . the latter either Micromax Electric Control—Position-Adjusting Type for regulating valves, vanes and dampers, or Duration- Adjusting Type for electrically-heated units—or Micromax Pneumatic Control. Suggested chart numbers are also listed for the more commonly used ranges, together with other accessories and supplies.

For a copy of this publication, write for Catalog ND44(2), Leeds & Northrup Company, 4934 Stenton Avenue, Philadelphia 44, Penna.

Ashcroft Uses Nylon In New Gauge Movement

Ashcroft Duragauge, a product of Manning, Maxwell & Moore, Inc., Bridgeport 2, Conn., will shortly be available with a new movement in which du Pont nylon will be employed for the first time as a material for pressure gauge movements.

Nylon, with its low coefficient of friction, high resistance to shock loading, vibration absorbent characteristics, and high corrosion resistant properties, surpasses any material formerly available for this purpose.

Incorporating well-established engineering principles, and exhaustively field-tested over a period of more than a year, this new movement will outwear and outperform any other movement, even under the most severe conditions of pulsation and vibration.

Allis Chalmers Makes Movie About Hi-Density Feeder

MILWAUKEE—A new 16-mm Allis-Chalmers sound movie, in color, portraying the company's Hi-Density Feeder for moving paper pulps is now available for showing before interested groups. Entitled "The Hi-Density Feeder," the film explains the unit's construction and operation and shows it in action in various pulp and paper mills, where it handles pulps as high as 8 percent bone dry consistency without air binding. For clarity in demonstrating actual operating features of the feeder, animated sequences are used.

Running time of "The Hi-Density Feeder" is ten minutes. Prints are available from the Allis-Chalmers' advertising department.

Belt Conveyor Handbook Published

Known as Catalog 785 and distributed by the Jeffrey Manufacturing Co., Columbus 16, Ohio, Jeffrey Belt Conveyors is virtually a handbook on the subject of belt conveyor installations. It contains information which is the outgrowth of nearly forty years' experience in furnishing belt conveyors to practically every industry where this type of conveyor is applicable.

The handbook endeavors to provide complete information on the latest designs of conveyor details and all engineering data necessary to permit designing a belt conveyor for any application. And since many conveyor problems can be answered by using a standard conveyor, the catalog provides a complete selection of Jeffrey standardized units so indexed and classified that by referring to the proper tables it is easy to determine the correct conveyor to suit a given need.

At Christmas Time we realize more than ever how much it means to have the friendship and good will of folks like you. We thank you and extend our best wishes for Christmas and the New Year.

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Ross Paper Machinery Corp.
Jack Ross — Stanley S. Ross

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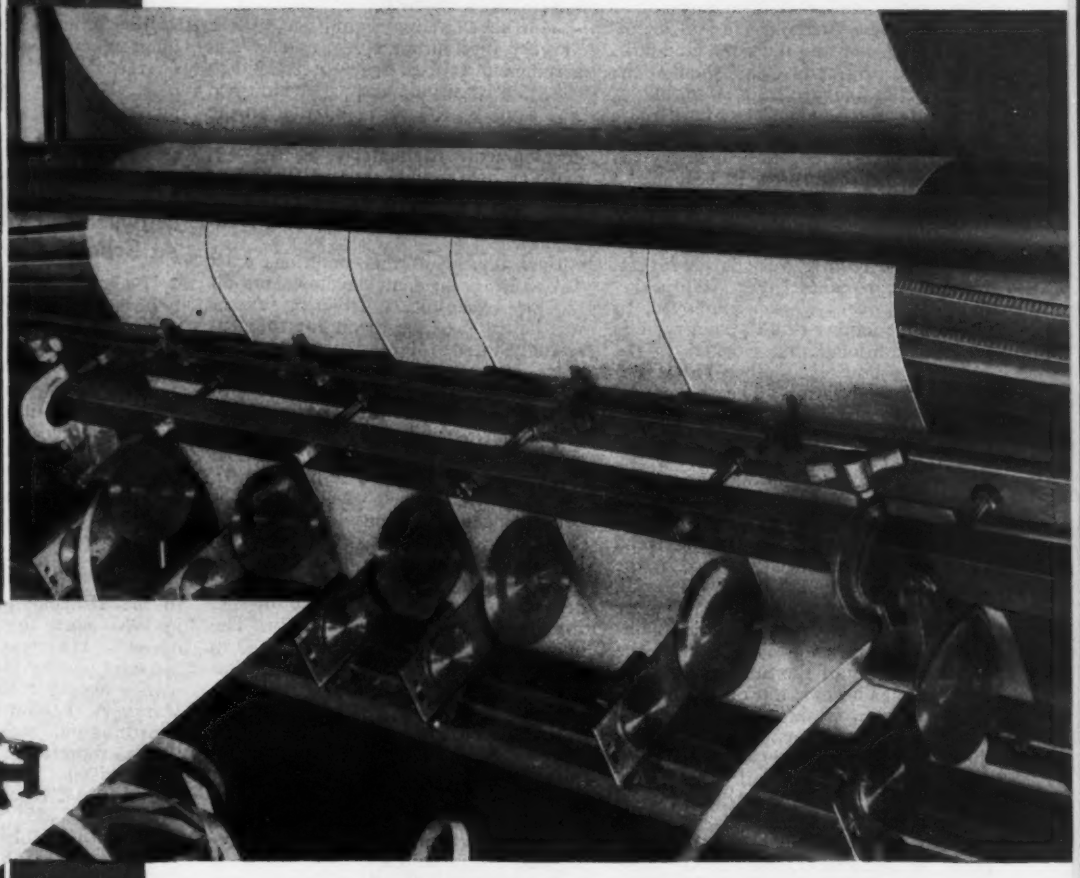
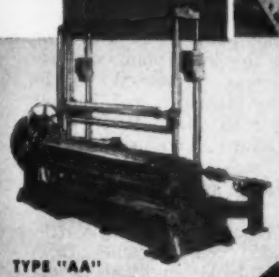
Thread-up time is reduced; slitter life increased; maintenance and down-time lessened. Ask for complete details. Samuel M. Langston Company—Camden, N. J.





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LANGSTON

SLITTERS AND ROLL WINDERS

Paper Mills Possess Permanent Asset Value

By E. W. Tinker, Executive Secretary, American Paper & Pulp Association

From an address before the Western Forestry & Conservation Assn. at Portland, Ore.

In discussing the position of the pulp and paper industry in the economy of the Pacific Northwest, I would like to point out one or two basic factual situations.

In the first place, the pulp and paper industry is not a migratory industry. The same mills that manufactured paper in New England are still manufacturing paper and the same pulp mills that were originally established in the State of Maine are still operating in that state. Even today New York State is the largest paper producing state in the Union. Once the industry is established in an area it becomes a permanent part of the economy and a permanent asset to the community and state in which it is located. Pulp and paper mills require very large investments. Approximately $20,000 is required for every worker employed. In the older sections of the country it is almost traditional that workers in the industry follow each other from generation to generation. The son of the skilled paper maker traditionally succeeds the father.

The enormous expansion in the use of paper and paper products, as our standards of living have risen, has resulted in great growth in the pulp and paper industry. The geographic trend in this growth has been dictated by the availability of supplies of raw material, particularly pulpwood, by cheap power and by adequate transportation facilities. This expansion is changing the entire economy of the Southern region. Forestry has become a profitable enterprise and new business has been created to an extent materially affecting the prosperity, not only of many communities, but of the railroads, intercoastal shipping, and even the domestic agricultural economy.

From the viewpoint of the pulp and paper manufacturer, the West Coast offers potentialities that are indeed intriguing. However, the pulp and paper manufacturer must develop his plans on a long-time basis. A mill once established must operate not for ten or twenty years, but as far into the future as we can perceive. The extremely high capital investments that are required must be depreciated and this requires long periods of time.

You have in this region forest soils of very high productive capacity and a sufficient area of true forest land to sustain a large pulp and paper industry. The rapidly growing population on the West Coast obviously indicates this development, particularly as the expansion of the industry is dependent upon the availability of paper to the public as a cheap and plentiful commodity.

Basically, all of the conditions exist to encourage prudent developments although a major contributing factor will be the creation of an environment friendly to such developments.

It has been my experience that in the expansion of existing projects or in the initiation of new projects the public can depend upon the conservative judgment of bona fide investors and company executives responsible for investments. To be assured of the permanence of essential supplies of raw materials, as well as other factors, it is inevitable that the pulp and paper industry will contribute to a major degree to the profitable use of the forest lands of the West Coast. The industry's expansion will be dictated to a large extent by the environment that is offered. Such factors as an unreasonable tax environment, excessive fire hazards, turbulent labor conditions, and even an atmosphere of governmental unfriendliness, must be considered by executives in planning long-time investments in any territory.

In my judgment the limit of expansion in the pulp and paper industry in the United States has not yet been reached and I would like to repeat that such expansion in the Pacific Northwest would inevitably be a major contributing factor in the development of the forestry program in this region.

I have been intimately familiar with West Coast conditions for many years. Based upon my knowledge of your conditions and knowledge of developments that are taking place in other regions, I would like to make a forecast. I believe it inevitable that as time goes on an orderly development of the forest products industries of the West Coast will take place, that will assure the maximum use of all forest lands and the production of those products of highest economic value. The rapidly with which this orderly development will be brought about, while dependent upon general economic conditions to a degree, will, in my judgment, be much more dependent upon clear thinking and foresight on the part of your political and economic leadership. In the long run this development is inevitable.

Detwiler at Holyoke As Schorle Resigns

HOLYOKE, Mass. — Herman J. Schorle, works manager of the Holyoke plant of the Worthington Pump & Machinery Corp., has resigned from the company, and E. M. Detwiler, assistant works manager of the Worthington works in Buffalo, N. Y., has been appointed to succeed him. Willard A. Emery, assistant works manager of the Holyoke Worthington works, has also resigned, and the position of assistant works manager has been abolished.

Schorle is a veteran of more than 26 years with Worthington. He came to the Holyoke plant from Harrison in 1937 when the local plant was reopened. He was promoted to be assistant works manager, and became works manager in May, 1945, when Harry A. Feldbush, vice-president of Worthington, was transferred from that position to the administrative office in Harrison.

Emery, who has been with Worthington for 25 years, came from Harrison to Holyoke in 1940 to organize and direct the new weldery which was one of the principal operations in the plant's gunmount division.

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The result? They specify a Lukens Clad Steel—ASME specification steel faced with the right corrosion-resistant metal permanently bonded to it. It introduces no unusual fabricating problems. Thickness of the cladding is uniform and suited to the requirements of each job.

Let our engineers help you gain solid metal advantages with clad steel economy. Complete information on Lukens Stainless-Clad Steels is contained in Bulletin 338; on Nickel-Clad, Inconel-Clad and Monel-Clad in Bulletin 255. Lukens Steel Company, 403 Lukens Building, Coatesville, Pennsylvania.

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DIGESTED

So we see that in spite of all the claims and counterclaims, one fundamental fact is clear. That is, our forest situation is improving, particularly in the last 25 years. It has improved to the point where the new growth of sawtimber is rapidly overtaking our withdrawal of such timber from our forests.

Why is this? Briefly, it is because:

1. We have converted a forest storehouse of deteriorating materials into a forest factory producing new materials. It is a surprising fact that today we have more land growing new trees than ever before.
2. We have attained better control of forest fires.
3. We have better management practices, and they are being used on more and more land.
4. In short, we are growing more trees because of all this.

Forest Service figures show clearly that as industrial and general forestry began to take hold, annual growth in our forests and woodlands increased. In 1925-29, the Forest Service estimates annual growth was about 8,912 million cubic feet. But in 1944 it was 13,370 million cubic feet.—From OUR ABUNDANT FORESTS, National Lumber Manufacturers Association.

Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

Current Weeks—1947		Corresponding Weeks—1946	
November 1	111.1	November 2	107.2
November 8	108.9	November 9	106.8
November 15	109.1	November 16	104.9
November 22	111.9	November 23	104.6
November 29 (revised)	107.4	November 30	103.0
December 6	*112.7*	December 7	106.6

COMPARATIVE MONTHLY SUMMARIES

1946		July	94.0	1947		July	93.5
Jan.	94.7	Aug.	104.7	Jan.	102.1	Aug.	104.2
Feb.	98.4	Sept.	101.3	Feb.	105.9	Sept.	102.0
Mar.	104.4	Oct.	106.4	Mar.	106.1	Oct.	109.5
Apr.	102.7	Nov.	105.5	Apr.	105.1	Nov.	*109.3*
May	100.7	Dec.	97.0	May	106.2		
June	104.6	Year Avg.	101.1	June	106.0		

COMPARATIVE YEARLY SUMMARIES

	1940	1941	1942	1943	1944	1945	1946	1947
Year to Date	86.0	97.4	91.3	88.5	88.7	89.8	101.6	*104.7*
Year Average	85.6	97.4	90.4	87.8	88.1	89.4	101.1	

PAPERBOARD OPERATION RATIOS†

Current Weeks—1947		Corresponding Weeks—1946	
November 1	100	November 2	100
November 8	102	November 9	102
November 15	101	November 16	101
November 22	102	November 23	100
November 29	100	November 30	94
December 6	*98*	December 7	99

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1946	90	91	100	99	94	97	89	99	96	100	99	92	96
1947	99	103	101	100	101	101	90	99	96	101	99		

* Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

† Per cents of operation based on "Inch-Hours" reported to the National Paperboard Association.

EDITORIAL

Force for Growth

Before an audience which, in prominent places on the speaker's platform, included the governors of the westernmost states, and forestry officials from nearby Canada, E. W. Tinker last week pointed a heavily stressed argument on behalf of the paper industry. At a meeting, in Portland, Oregon, of western conservation and forestry interests he spoke about paper not as a consuming destructive influence on the forests of an area but as a continually expanding industrial fact which for its own necessary economical operation must remain in a section once it has established its mills there. In the light of this truism it follows then, that the paper industry, and the paper mill, must always serve its own most economical interests by helping to conserve wisely the materials that have induced it to settle where it finds factors that are favorable.

The text of Mr. Tinker's talk is printed elsewhere in these pages. For their value in presenting others with facts and arguments that may be pertinent in other places and at other times his sentences are worthy a thoughtful reading by those for whom he speaks, as they are for those whom he was then addressing. It may be that at times too much stress has been paid upon the paper mill as a consumer of pulpwood. Great good can be expected to follow when the efforts that paper mills now are making to encourage tree growing shall be more widely recognized. The paper mill then, at long last, will be something more than a large and impressive force that is associated only with cutting down. Actually, as Mr. Tinker shows, it is more economical to encourage building up.

Point of View

The reader may take his choice, and can be relied upon to do so as usual, of two divergent points of view represented by news reports of the week. In its comment on a survey by the American Paper and Pulp Association which found that increased capacity in paper mills may be expected to relieve acute shortages in the foreseeable future, the New York Times found a "trade spokesman" to credit with sentiments that lead it to include in its head the words "Fearing Price Drop." On the other hand a story of substantially the same tenor was being given to an audience in Dallas, Texas, by a leading figure in the trade who found reason for reassurance in the facts.

Ralph Moser, vice-president of the Carpenter Paper Company, addressed his remarks to the southern section of the National College Bookstores Association, and while he was telling them that supply may catch up with demand within another year he also pointed out that recent conditions have been abnormal for a number of reasons.

This year's per capita paper consumption is estimated at 350 pounds, as compared to 258 pounds in 1940, Mr. Moser explained, and wartime machinery shortages have prevented the supply from keeping up with the demand.

Now, however, machines ordered several years ago are being delivered to mills over the nation, and manufacturers are expected to produce between 23,000,000 and 24,000,000 tons of paper in 1948.

This year's all-time high production, 21,000,000 tons, fell short of the demand. Mr. Moser noted that the 1947 production figure does not include 3,500,000 tons of newsprint imported from Canada.

Newsprint Inventory

The Nation's newspapers continue to report low inventories on one hand, and increased usage on the other. Stocks at the end of November were three days supply less than those of the previous month, but two days ahead of the inventory for November a year ago. On the other hand the same newspapers report that during the month just past they increased their consumption of newsprint by nearly 16 per cent. The story is told in monthly figures made public this week by the American Newspaper Publishers Association.

Daily newspapers reporting to the ANPA had 33 days supply of newsprint on hand and in transit at the end of November 1947. This represents a decrease of three days supply compared with stocks on hand at the end of October 1947. These stocks of 33 days at the end of November 1947 compare with 31 days at the end of November 1946; 37 days at the end of November 1945 and 44 days at the end of November 1941.

Daily newspapers reporting to the ANPA consumed 338,012 tons of newsprint in November 1947 compared with 291,517 tons in November 1946 and 263,889 tons in November 1941. This was an increase in November 1947 over November 1946 of 15.9 per cent and an increase over November 1941 of 28.1 per cent.

The total estimated newsprint consumption in the United States for November 1947 was 463,030 tons which includes all kinds of uses of newsprint. For the first eleven months of 1947 it is estimated to be 4,441,838 tons. During the first eleven months of 1947 the reporting newspapers used 3,242,542 tons of newsprint, an increase of 14.1 per cent over the first eleven months of 1946 and an increase of 21.3 per cent over the first eleven months of 1941.

W. L. Cook

Editor

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SECTION OF THE

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122 E. 42nd ST., NEW YORK 17, N. Y. Edited By R. G. MACDONALD, Secretary

The Suction Roll of Today*

By H. C. Merritt[1]

Abstract

The suction couch, primary suction couch, suction drum rolls, suction extractor roll, suction press roll installations have contributed to more efficient water removal, and consequently higher speeds, with an increase in wire and felt life. These suction units are described briefly.

In appraising today's suction roll it is well to consider the history of its development. The idea is old, patents dating back from 15 to 60 years include the basic elements of modern design. It did not reach a place of importance until comparatively recent years for two reasons. First, the operating speeds were so moderate that plain rolls filled most requirements satisfactorily, and second, availability of materials and manufacturing methods hampered its development.

With the increase of machine speeds came an increase in desirability of suction rolls and a corresponding increase in incentive to the manufacturers to solve the problems inherent in their manufacture.

The first and most serious problem involved the production of a noncorrosive shell of uniform physical characteristics at a reasonable cost. The development of centrifugal castings solved this problem and marked the starting point of active suction roll application.

The first suction rolls were carried on large ring bearings, the sleeves of which were shrunk on the shell and were driven indirectly through a ring gear also mounted on the shell. This arrangement was cumbersome and space consuming and in addition permitted only moderate nip pressures to be applied thus robbing the suction roll of much of its usefulness. The advent of the direct driven roll permitting the use of high capacity bearings with consequent high nip loads marks the second forward step in the development of the modern roll.

At about the same time the present spiral drilling pattern was developing to overcome scoring of the interior of the shell and to form a pattern whereby the proportion of hole area and land at the nip line is nearly constant.

This was followed by the application of the rubber cover to the shell to avoid shadow marking and to soften the action of the hard bronze shell on the felt with a consequent increase in felt life, the latter being by far the most important factor today.

These comprise the major factors in suction roll development but they have been accompanied by many mechanical refinements such as the substitution of spring supported adjustable deckles and sealing strips of the bakelite resins for laminated rubber, the development of the cantilever couch made possible by the direct drive to bring us to the modern roll as it is known.

Applications

The suction couch roll, first application of the suction roll, is today almost universally used on all except certain specialty machines. The shells for these rolls are drilled and the holes at the outer surface are countersunk to increase the drainage area. This is common practice on all rolls when no pressing is done. The advent of speeds of 1000 f.p.m. and more has been met by an increase in box width and vacuum pump capacity in order to improve the effectiveness of the roll. More recently the dual box couch has been introduced. This provides a wide low vacuum box followed by a usually narrower high vacuum box thus achieving maximum water removal with minimum vacuum pump capacity and less drastic action on the sheet.

A further recent development is the primary suction couch installed at the start of the wire incline to the main couch. Because of the limited wrap obtainable the box is necessarily narrow and the vacuum may be high without danger of wire seizure, power requirement decreased and wire life increased.

Both of these rolls are driven and both cantilevered to facilitate wire changing.

TABLE I.—SUCTION COUCH ROLLS

(A) Grade of Paper	Suction Box Width, in.	F.p.m.
Book	8	750
Kraft	12	1000
Kraft	12–6	1500–2000
News	12–6	1500–2000
News	12	1000

(B) Primary couch roll used on speeds from 1200 f.p.m. to good advantages as this relieves drag of wire on suction boxes reducing driving power and increasing wire life.

TABLE II.—SUCTION DRUM ROLLS

Grade of Paper	Roll Dia., in.	Box Width, in.	F.p.m.
Board	25–30	17–21	200–500
Straw	25	17	200–500
Roofing	25–30	17–21	100–300

TABLE IIA.—SUCTION DRUM PRESS

Grade of Paper	Roll Dia., in.	Box Width, in.	F.p.m.
Board	25	17	200–500
Board	30	21	200–500

* Presented at the Second Engineering Conference sponsored by the Technical Association of the Pulp and Paper Industry held at The Bellevue-Stratford, Philadelphia, Pa., Nov. 3-5, 1947.

[1] Chief Engineer, Downingtown Manufacturing Co., Downingtown, Pa.

The advantages of suction rolls in their various forms are, of course, a dryer sheet permitting higher speeds and safer pressing. Table I gives commonly used box widths for couch rolls.

The suction drum roll was an early suction roll application which still has its place on certain cylinder machines. The modern roll has a very wide box and countersunk holes. It has been modified by the application of a top roll forming the suction drum press. Tables II and IIA give box widths and applications.

The suction extractor roll closely parallels the function of the suction drum roll or drum press. The suction extractor is a countersunk hole suction roll having a wire face stretched tightly around the shells and a top roll mounted to give a pressing action. It differs from the drum roll or drum press in that while the latter must apply its vacuum to the sheet through a felt, the suction extractor applies its vacuum directly to the sheet itself. Used in conjunction with the plain extractor it has given excellent results. Table III shows box widths and applications.

The advantages of the suction drum roll or press and the suction extractor roll are a dryer sheet, partial elimination of plain primary presses, bulkier sheet, reduction of top felt picking, elimination of crushing and blowing, increased felt life, and increased production.

The suction press roll has developed through the years until today it is almost essential on every machine. In its present rubber covered state it contributes materially to safe and speedy operation of the machine and is suitable for operation at any speeds now in use or in project and is capable when so specified of nip pressures of 300 to 400 pounds per inch. The advantages gained by use of the suction press are a dryer sheet, elimination of wet streaks, increased production, increased felt life, longer intervals between wash-ups, and heavier pressing without sheet damage. Table IV gives applications and box widths.

While the suction press roll will aid materially in preventing the felt from filling up, auxiliary equipment for cleaning felts has long been found necessary. The suction felt cleaning roll serves this purpose. This is a small diameter, light roll with countersunk drilling and is widely used on both cylinder and fourdrinier machines. It operates on the face of the felt. On cylinder machine wet felts it follows directly the showers and whippers and may be followed by a pair of wringer rolls. On press felts it should in most instances be preceded by showers and followed by a pair of wringer rolls to produce maximum results.

It gives longer felt life by eliminating the drag present with suction flat boxes thus reducing power

TABLE III.—SUCTION EXTRACTOR UNIT

Grade of Paper	Roll Dia., in.	Box Width, in.	F.p.m.
Board	22	3¾	200–500
Roofing	22	3¾	200–500

TABLE IV.—SUCTION PRESS* ROLLS

Grade of Paper	Location	Suction Box Width, in.	F.p.m.
Book	1st press	3¾	750
Kraft	1st and 2nd press	3¾–6	1000–1500
News	1st and 2nd press	3¾–6	1000–1500
Tissue *	1st and 2nd press	3¾–6	1500–2000
Board	1st and 2nd press	3¾	300–500
Board	Primary	3¾	300–500
Roofing	Primary	6	100–300
Straw	Primary	6	300–500

* Special drilling to give maximum open area.

TABLE V.—SUCTION FELT ROLLS

Grade of Paper	Roll Dia., in.	Box Width, in.	F.p.m.
Board	10–20	3–4	200–500
Straw	10–20	3–4	200–500
Roofing	10–20	3–4	100–300
Book	10–20	3–4	750
News	10–20	3–4	1000–1500
Kraft	10–20	3–4	1000–1500
Tissue	10–20	4	1500–2000

On all press felts and on board machine top wet felts the recommended arrangement is to precede the suction felt roll with two showers and follow it with a pair of wringer rolls.

TABLE VI.—SUCTION CYLINDER COUCH

Grade of Paper	Roll Dia., in.	Box Width, in.	F.p.m.
Board	18	6–16	200–500
Straw	18	15	200–500
Roofing	18	15	100–300

requirements and felt wear, reduces frequency of wash-ups by conditioning the felt, and keeps the felt surface alive by fluffing up the nap. Table V gives recommendations for various applications.

A variation is used on some high speed machines consisting essentially of a light suction press applied to the felt only. This is comprised of a small suction roll on the face of the felt with a top roll mounted to press the felt as it passes.

The suction cylinder couch roll was developed to replace the conventional rubber covered couch roll over the cylinder mold. It is at present a wire faced suction roll with a comparatively wide box which eliminates the pond usually present at the nip of the plain couch, assists in couching the sheet from the mold, and delivers a much dryer sheet than the plain couch. The development of this roll for all types of applications is not yet complete, but its usefulness has been amply demonstrated and experiments now under way should make it possible to complete its development shortly. When installed it must be accompanied by a suitable cylinder mold drive. Table VI gives tentative data for limited applications to date.

The use of the rubber covered suction roll as a pressure roll against a Yankee drier has been made with distinct advantages. While it is unlikely that it will remove much water it has eliminated wet streaks and further it eliminates blowing at this point by removing air.

Encyclopaedia of Chemical Technology

Volume 1 in the series of the Encyclopaedia of Chemical Technology has just been released by the Interscience Encyclopaedia, Inc. (980 pp. 10½ x 7½). It is edited by Raymond E. Kirk and Donald F. Othmer of the Department of Chemistry and Chemical Engineering, Polytechnic Institute of Brooklyn.

This work represents a tremendous undertaking by the editors and contributors, of which there are 94 represented in the first volume. The first volume takes up subjects from A to Anthrimides and includes such subjects as abrasives, absorption, acid-base systems, acoustical building materials, acrylics, adhesives, adsorption, air conditioning, alcohol, Aldehyde, Algin, alkali and chlorine, alkali metals, alloys, aluminum compounds, amines and plastics, ammonia, analytical chemistry, aniline, anthroquinone dyes, etc.

The contributors are evidently experts in their respective fields and offer rather complete and concise information regarding their specialties.

Copies of Volume I may be purchased from the Book Department of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York 17, N. Y. at $20.00 per copy.

A Fuel Engineering Study of Some Recent Boiler Installations in the Pulp and Paper Industry*

By J. E. Tobey[1]

Abstract

New postwar power plants reflect improved design with respect to fuel-burning equipment. Results of a comprehensive study of the design specifications of 65 postwar boiler units purchased by the pulp and paper industry in the Northeastern industrial area, ranging in capacity from 200,000 down to 6,000 pounds of steam per hour, are reported.

The economics of conservative design, and flexibility in new steam-generating equipment are stressed.

The future fuels outlook in the United States, with special reference to coal quality, is discussed. Buyers are urged to carefully study fuel requirements to determine which coal fields can best meet their long-range plans.

The author recommends that design of new installations should be preceded and based on a comprehensive study of fuels which will logically be available for the life of the plant.

The pulp and paper industry is engaged in a huge program of expansion and ranks second *(1)* in the purchase of steam-generating equipment since the end of World War II, of twenty major industries. This progressive industry is buying larger units, and steam pressures and temperatures are higher. The most notable feature of the new units is their conservative design. This is reflected in more furnace water cooling, lower heat releases, better distribution of heating surfaces, larger air heaters, larger pulverizers, lower stoker burning rates, more adequate coal- and ash-handling equipment, and the increased use of fly ash separators. This spells wide flexibility with respect to fuels, and is as it should be, since there are several hundred varieties (seams) of bituminous coal east of the Mississippi River.

The war years drove home with a vengeance the increasing need for fuel flexibility and proved that only plants of conservative design could operate at full capacity day in and day out during the emergency because of their adaptability to various types of coal. Not only a bulwark in critical emergencies, there is an important everyday reason for conservative design, and it deals with economics.

Today's boiler unit will burn its original cost in

* Presented at the Second Engineering Conference sponsored by the Technical Association of the Pulp and Paper Industry held at The Bellevue-Stratford, Philadelphia, Pa., Nov. 3-5, 1947.

[1] Director, Fairmont Coal Bureau, New York, N. Y.

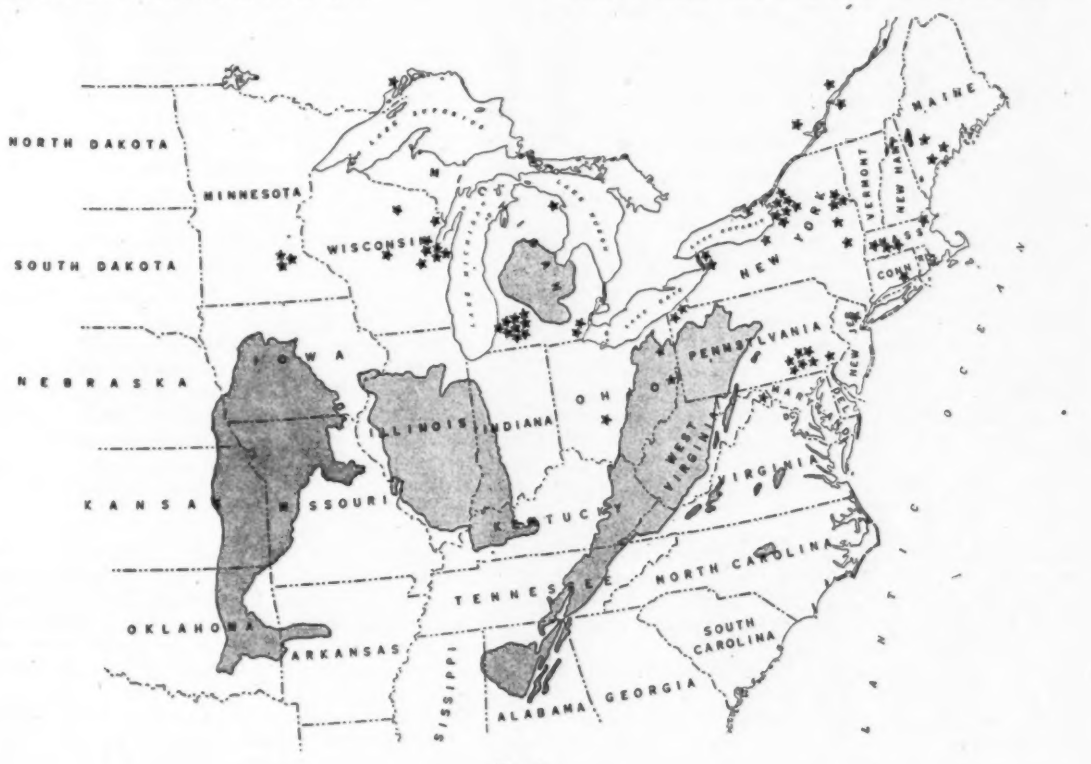


FIG. 1

Geographical Locations of 65 New Postwar Boiler Installations by the Pulp and Paper Industry Designed for Wide Fuel Flexibility

TABLE I.—DESIGN DATA—SOME POSTWAR BOILER INSTALLATIONS IN THE PULP AND PAPER INDUSTRY

Date of Contract	No. of Units	Boiler: Capacity, Lb./hr.	Boiler: Water Wall Surface, Sq. ft.	Boiler: Heating Surface, Sq. ft.	Boiler: Boiler Pressure, p.s.i.	Boiler: Steam Temp., °F.	Furnace: Furnace Volume, Cu. ft.	Furnace: Furnace Heat Release, B.t.u./cu. ft./hr.	Furnace: Furnace Heat Available, B.t.u./sq. ft./hr.	Furnace: Furnace Bottom	Furnace: Pounds of Coal per sq. ft. of Grate Area	Furnace: Boiler and Furnace Efficiency, %	Fuel: Minimum Heating Value, B.t.u./lb. as received	Fuel: Minimum Ash Softening Temp., °F.	Fuel: Minimum Grindability, Hardgrove	Fuel: Annual Coal Consumption, Tons
PULVERIZERS																
Connecticut																
1945	1	60,000	1,220	7,740	475	650	2,900	28,100	72,800	Dry		86.1	14,000	2,100	50	22,521
Maine																
1946	1	200,000	4,370	20,080	800	750	15,300	17,400	74,000	Dry		86.0	13,800	2,050	60	75,070
1946	2	160,000	4,310	12,400	560	750	13,000	15,000	61,300	Dry		87.0	14,300	1,900	55	120,112
Massachusetts																
1945	1	70,000	2,630	6,690	450	625	3,700	26,400	76,500	Dry		85.2	12,300	2,200	55	26,275
1945	2	60,000	1,680	7,800	420	625	3,600	22,700	104,500	Dry		85.5	13,000	2,200	60	45,042
Minnesota																
1946	1	150,000	5,840	13,500	700	750	10,100	18,700	78,400	Dry		86.3	10,000	2,000	60	56,303
New Jersey																
1945	1	50,000	540	7,500	250	550	4,200	19,000	52,500	Dry		84.0	14,000	2,380	50	18,768
New York																
1946	1	95,000	1,590	11,080	700	650	4,400	25,600	77,100	Dry		85.2	13,800	2,000	60	35,658
1946	2	60,000	2,780	7,620	450	600	4,200	18,200	41,800	Dry		85.0	13,400	2,000	50	45,042
1946	1	40,000	1,900	3,780	275	506	3,200	17,500	63,000	Dry		77.4	12,200	2,300	50	15,014
1945	2	110,000	2,440	11,600	810	807	6,700	21,400	88,000	Dry		86.3	13,556	2,000	55	82,578
Pennsylvania																
1946	1	160,000	7,640	14,010	550	725	13,800	18,700	81,000	Dry		83.8	11,700	2,000	50	60,057
1947	2	80,000	2,360	9,990	500	625	4,410	22,600	104,000	Dry		85.1	13,500	1,900	66	60,056
1946	1	115,000	3,690	12,100	650	640	7,600	23,500	106,000	Dry		83.1	10,500	2,150	50	43,165
1945	2	150,000	2,940	13,200	675	775	8,700	23,800	97,800	Dry		85.1	12,400	2,000	55	112,606
1945	2	150,000	3,070	14,300	620	825	9,700	20,800	97,800	Dry		87.5	13,500	2,000	60	112,606
Wisconsin																
1946	1	110,000	3,080	7,100	425	700	9,000	19,500	78,300	Dry		84.8	10,800	2,000	58	41,289
1946	1	100,000	3,670	9,700	700	700	5,900	20,000	57,500	Dry		86.4	13,000	2,000	50	37,535
Canada																
1944	1	65,000	1,620	8,600	675	750	3,550	22,800	78,200	Dry		85.2	13,100	1,915	55	24,398
1946	1	200,000	5,310	20,320	250	435	13,100	18,500	145,000	Dry		85.2	12,500	1,900	65	75,070
1946	1	90,000	2,220	8,400	150	465	5,100	22,600	83,500	Dry		84.7	13,300	1,900	55	33,782
1946	1	100,000	2,270	12,200	500	650	5,970	23,100	91,700	Dry		83.6	13,000	1,980	60	37,535
SPREADER STOKERS																
Massachusetts																
1947	1	21,000	710	3,720	250	645	920	35,000	124,000		27.3	78.5	14,000	2,300		7,882
Michigan																
1946	1	35,000	400	4,550	250	365	1,700	24,600	95,000		28.2	83.0	11,750	2,200		13,137
1945	2	150,000	1,440	13,070	350	600	5,100	39,300	115,000		49.3	84.7	13,440	2,100		112,606
1947	1	45,000	730	5,270	475	700	2,350	25,000	145,000		48.5	84.8	11,641	2,100		16,891
1946	1	47,000	580	6,090	250	560	2,620	22,400	97,000		42.5	83.9	11,920	1,900		17,641
1946	1	47,000	550	7,100	525	580	2,700	22,300	97,000		43.5	84.5	11,920	1,900		17,641
Minnesota																
....	2	85,000	2,050	10,100	450	650	4,400	29,200	225,000		47.0	80.4	10,350	2,100		63,810
New York																
1946	1	60,000	1,880	8,700	475	750	3,820	22,200	61,200		33.2	85.3	12,600	2,000		22,521
1946	1	60,000	1,880	8,700	475	750	3,820	22,200	61,200		33.2	85.3	12,600	2,000		22,521
1946	3	60,000	1,880	8,700	475	750	3,820	22,200	61,200		33.2	85.3	12,600	2,000		67,563
1947	1	40,000	600	5,790	450	377	2,370	20,500	138,000		29.2	83.0	13,950	1,950		15,014
....	1	6,000	200	1,000	250	399	220	35,000	122,100		22.6	77.0	12,500	2,100		2,252
1945	1	40,000	1,070	6,510	225	397	1,610	30,800	116,600		30.2	82.3	13,500	2,000		15,014
Ohio																
1946	1	80,000	1,690	9,270	650	750	4,000	28,200	121,000		49.7	84.0	12,100	2,400		30,028
Pennsylvania																
1946	1	127,000	2,880	11,330	450	760	6,000	30,000	150,000		47.7	83.6	13,300	2,150		47,669
West Virginia																
1947	1	46,000	1,140	5,430	475	700	1,740	35,700	121,700		36.2	83.7	13,800	2,300		17,266
Wisconsin																
1946	1	30,000	490	6,160	450	635	2,050	18,500	83,700		25.0	84.2	14,000	2,200		11,261
1945	1	30,000	530	4,780	200	388	2,800	13,300	108,000		20.4	81.9	14,050	1,900		11,261
1946	2	60,000	1,240	6,780	600	550	4,250	19,900	60,000		33.8	83.7	13,000	1,900		45,042
1947	1	90,000	1,130	7,870	650	700	4,450	27,100	133,000		35.8	85.7	14,200	2,400		33,782
UNDERFEED STOKERS																
Michigan																
1945	2	25,000	210	4,000	275	406	1,400	20,700	79,500		25.4	82.3	13,500	1,900		18,768
1945	4	100,000	970	11,140	275	512	4,260	29,200	145,000		40.3	84.3	13,750	2,150		150,140
New York																
....	1	9,000	200	1,500	160	366	280	40,000	142,000		29.0	78.0	13,500	2,100		3,378
Wisconsin																
1944	1	150,000	2,590	16,670	925	825	10,350	18,000	98,700		36.2	84.8	12,700	2,200		56,303
*1946	1	100,000	790	8,200	425	675	3,860	36,000	173,000		52.2	83.5	12,000	2,250		37,535
TRAVELING- AND CHAIN-GRATE STOKERS																
Ohio																
1946	1	50,000	1,250	10,030	425	600	2,720	38,000	48,500		32.2	76.4	13,540	2,100		18,768
1946	1	120,000	1,040	12,900	500	668	5,090	33,900	100,000		39.6	81.6	11,500	2,150		45,042

fuel in 1 year or less. A 200,000 pound boiler unit for a pulp or paper mill today will cost in the neighborhood of from $300,000 to $330,000, exclusive of building, chimney and auxiliaries. Assuming an annual consumption of 60,000 tons of coal at $7.00 per ton, this unit will burn over $420,000 worth of fuel per year, and $10,500,000 in a life of 25 years. Therefore, fuel cost, not investment cost, is the prime consideration.

Conservative versus tight design increases the original investment on the order of 10%, and this small difference is often paid off during the first year's operation through the use of the more economical coals. Coal for conservatively designed units can be purchased on the heat-energy basis. Thus, this extra investment is fast-working money which returns itself many-fold. On the other hand, tight design precludes forever the purchase of fuel on the heat-energy basis.

To make the case for conservative design stronger, it is worth-while to look back. Why were the old prewar plants so deficient in design with respect to fuel adaptability? There are three main reasons: (1) fuels were cheap; (2) designers did not have

basic information on coal reserves and their variations; (3) the art and science of combustion equipment design had not progressed to its present state.

The effect of the war was revolutionary and a new era in design was ushered in on V-J Day with the subsequent releasing of controls and wartime restrictions on construction. Prices of all fuels are much higher today; the war took a heavy toll of the Nation's finest coals, and the use of bread-and-butter-variety coals is increasing. Future power plants must of necessity be equipped to burn a much wider range of coals than were their predecessors.

Equipment manufacturers, consulting engineers and others are today advocating conservative design and, as a result, hundreds of new units are being built which incorporate this sound practice *(2, 3)*. The following statements by prominent engineers also reflect the trend:

John Van Brunt (Vice-President, Combustion Engineering Co. Inc.)—"A new boiler unit must be designed to utilize to the best advantage those fuels which are available at a satisfactory price and which, if efficiently burned, will produce steam at the lowest possible cost, free from interruption because of any condition or character of the fuel. It will be found that the cost of a more conservatively designed unit is fully justified by the saving in fuel cost due to the ability to burn the lower-priced fuel and the avoidance of forced outages because of fouled heating surfaces" *(4)*.

W. H. Rowand (Chief Staff Engineer, The Babcock & Wilcox Co.)—"High availability, continuity of operation at maximum load, and low maintenance are expected and actually obtained with present-day steam-generating equipment utilizing all grades of coal" *(5)*.

T. A. Marsh (Nat'l. Industrial Engineer, Iron Fireman Mfg. Co.)—"Fuel flexibility, in terms of the ability to burn the widest possible range of coal, is a more important factor in fuel-cost reduction than a few extra points in thermal efficiency, but necessitating limited coal selection. Plants designed to burn economy coals can, with few exceptions, burn standard or premium coals" *(6)*.

F. W. Argue (Power Engineer, Stone & Webster Engineering Corp.)—"With the wartime experience fresh in mind, it is to be expected that the trend toward more liberal design will continue" *(7)*.

B. G. A. Scrotski (Associate Editor, *Power*)—"With the lessons learned during the difficult war days, it is sincerely hoped that these (new industrial) plants will be engineered from the standpoint of reliability, flexibility, and ruggedness, and not from the first-cost standpoint alone" *(8)*.

Study of Design Data

Like the electric utilities industry and others, the pulp and paper industry is progressive in purchasing boiler units of conservative design. The author has made a study of 65 postwar installations in the pulp and paper industry located in 12 Northeastern and Great Lakes states and Canada, all of which are designed to burn a wide range of coals. It is believed that their number represents most, or at least a large portion, of complete boiler units purchased by the industry in this area since the end of the war. The geographical location of these installations and their relation to the bituminous coal fields are shown in Fig. 1. A summary of the critical design data for all units is found in Table I, and this represents the heart of this paper. Table II is included as a quick reference and is a summary of the average values of the design factors.

It is evident from a review of Tables I and II that the 65 units are designed with sufficient flexibility to provide for the use of practically all coals which may be supplied in their geographic location under both normal and emergency conditions. The capacities of units range from 200,000 down to 6,000 pounds of steam per hour. The total steam-generating capacity is 5,598,000 pounds of steam per hour, representing an average of 86,123 pounds per unit. It is estimated the total annual bituminous coal consumption will be on the order of 2,101,218 tons.

By types of firing and average capacities, the units are as follows:

	No. of Units	Average Capacity, Lb. of steam per hr.
Pulverizers	29	108,448
Spreader stokers	25	62,960
Underfeed stokers	9	78,778
Traveling- and chain-grate stokers	2	85,000

Steam pressures range from 150 to 925 p.s.i., the average being 468 p.s.i., and steam temperatures range from 365 to 825°F., averaging 629°F. Design boiler and furnace efficiencies range from 76.4 to 87.5%, averaging 84.0%.

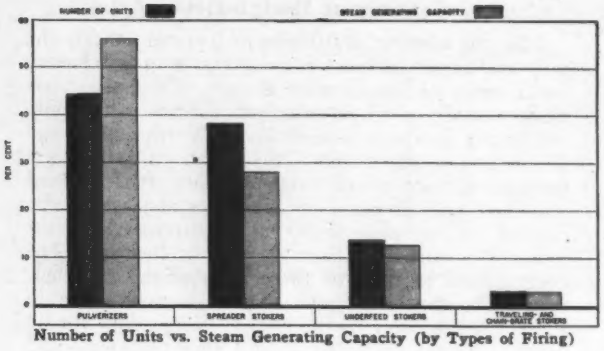
There is considerable difference between fuel specifications for design purposes and fuel specifications for buying purposes. For design purposes the specifications are maximum or minimum tolerance values affecting flexibility, and for fuel buying they refer to actual coal analyses. In some instances consumers apparently are confused or fail to make this distinction.

This is reflected in some of these data by exceptionally high B.t.u. value and low moisture, low ash and sulphur content, whereas the installations involved are designed for low heat releases, low burn-

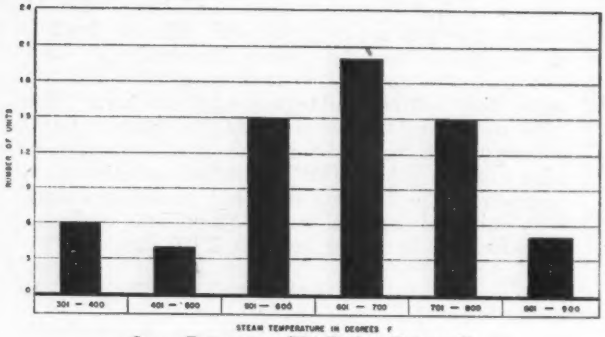
TABLE II.—AVERAGE DESIGN FACTORS, PULP AND PAPER INDUSTRY STUDY, BY TYPES OF FIRING

	Pulverizers	Spreader Stokers	Underfeed Stokers	Traveling and Chain Grate Stokers	All Types of Firing
Total number of units	29	25	9	2	65
Boiler capacity, lb. steam/hr.	108,448	62,960	78,778	85,000	86,123
Water wall surface, sq. ft.	2,991	1,262	875	1,145	1,961
Heating surface, sq. ft.	10,918	7,531	8,770	11,465	9,335
Design boiler pressure, p.s.i.	539	429	351	463	468
Steam temperature, °F.	674	612	525	634	629
Furnace volume, cu. ft.	7,188	3,285	3,814	3,905	5,119
Furnace heat release, B.t.u./cu. ft.	21,048	26,248	28,022	35,950	24,472
Furnace heat available, B.t.u./sq. ft.	82,962	110,324	128,078	74,250	99,465
Pounds coal/sq. ft. of grate area	....	36.5	36.6	35.9	36.5*
Boiler and furnace efficiency, %	85.2	83.4	83.1	79.0	84.0
Heating value of fuel (as received), B.t.u./lb.	12,942	12,768	13,356	12,520	12,919
Ash-softening temperature, °F.	2,030	2,080	2,106	2,125	2,063
Grindability, Hardgrove index	56	....	....	....	56**
Annual coal consumption, tons	40,706	23,620	29,569	31,905	32,326

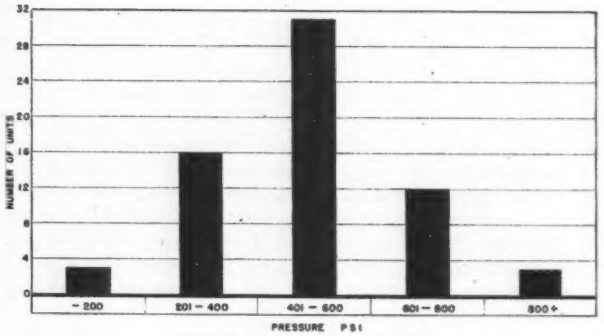
* Does not include pulverizers.
** Includes pulverizers only.



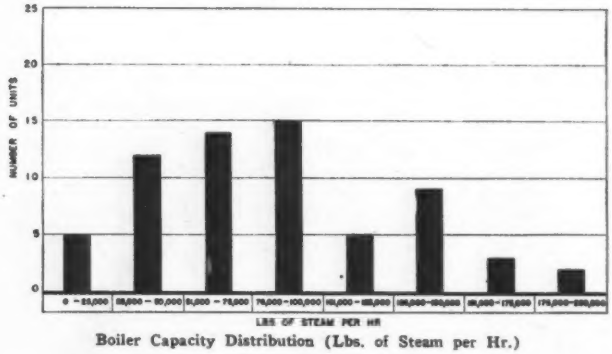
Number of Units vs. Steam Generating Capacity (by Types of Firing)



Steam Temperature Distribution, Degrees F.



Boiler Pressure Distribution, PSI



Boiler Capacity Distribution (Lbs. of Steam per Hr.)

ing rates and large pulverizing capacities which indicate wide fuel flexibility.

Data collected on the installations show the following values for all types of firing: B.t.u. range (as fired basis)—10,400 to 14,440; average 12,919. Maximum moisture 3.00 to 16.53%; average 6.78% (represents 57% of total units). Maximum ash—4.80 to 17.00%; average 8.17% (represents 57% of total units). Maximum sulphur 0.81 to 5.87%; average 2.15% (represents 43% of total units). Minimum ash-softening temperature—1900 to 2400°F.; average 2063°F. Grindability (Hardgrove) 50 to 66; average 56.

Pulverizer-Fired Units

The 29 pulverizer-fired units are all of the dry-bottom furnace type and have a total steam-generating capacity of 3,145,000 pounds of steam per hour. The average unit capacity is about 108,000 pounds of steam per hour. All but two units are above 50,000 pounds of steam per hour and the largest is 200,000. Boiler pressures range from 250 to 810 p.s.i., the average being 539 p.s.i. Steam temperatures range from 435 to 825°F., with an average of 674°F. Furnace heat release ranges from 15,000 to 28,000 B.t.u. per cu ft, the average being 21,048. The factor for furnace heat available ranges from 41,800 to 145,000 B.t.u. per square foot, the average is 82,942. Design boiler and furnace efficiency ranges from 77.4 to 87.5% with only one unit below 83.0%, the average is 85.2%. Heating value of coal ranges from 10,000 to 14,300 B.t.u., the average being 12,942. Minimum ash-softening temperature ranges from 1900 to 2380°F., the average being 2030°F. for the pulverizer units. Grindability (Hardgrove index) ranges from 50 to 66; the average being 56. Estimated annual coal consumption ranges from 15,014 to 75,070 tons per unit, the average being 40,706 tons.

Spreader-Stoker-Fired Units

The spreader-stoker-fired units, numbering 25, all have furnace water cooling which eliminates troublesome wall and tube slag. These units have a total steam-generating capacity of 1,574,000 pounds of steam per hour and the average unit capacity is slightly above 60,000. The capacities range from 6,000 to 150,000 pounds of steam per hour with only one unit below 21,000. Boiler pressures range from 225 to 650 p.s.i., the average being 429 p.s.i. Steam temperatures range from 365 to 760°F., with an average of 612°F. Furnace heat releases average 26,248 B.t.u. per cu ft and furnace heat available 110,324 B.t.u. per square foot. Design boiler and furnace efficiency ranges from 77.0 to 85.7%, the average being 83.4%.

Pounds of coal per square foot of grate area range from 20.4 to 49.7, the average being 36.5. These rates are entirely satisfactory. Because of the thin fuel bed carried by the spreader stoker and the cooling effect of the air on the grates, there is no direct relationship between ash-softening temperature and burning rates. Therefore, burning rates can be fairly high and, in fact, for fluctuating loads higher rates are preferable and give better low load performance.

Minimum ash-softening temperature ranges from 1900 to 2400°F., the average being 2080°F. Heating value of coal ranges from 10,350 to 14,200 B.t.u. per pound. Estimated annual coal consumption ranges from 2,252 to 56,303 tons per unit, the average being approximately 23,620 tons.

Underfeed-Stoker-Fired Units

The nine underfeed-stoker-fired units have a total steam-generating capacity of 709,000 pounds of steam per hour and the average unit capacity is 78,778. The capacities range from 9,000 to 150,000 pounds of steam per hour. All units have sufficient water-cooled furnace heat absorbing surface to avoid troublesome slag. Boiler pressures range from 160 to 925 p.s.i., the average being 351 p.s.i. Steam temperatures range from 366 to 825°F. Furnace heat releases average 28,022 B.t.u. per cubic foot and furnace heat available 128,078 B.t.u. per square foot. Design boiler and furnace efficiency range from 78.0 to 84.8%, the average being 83.1%.

Pounds of coal per square foot of grate area range from 25.4 to 52.2 pounds, the average being 36.6. Minimum ash-softening temperature ranges from 1900 to 2250°F., the average being 2106°F.

Heating value of coal ranges from 12,000 to 13,750 B.t.u. per pound, the average being 13,356. Estimated annual coal consumption ranges from 3,378 to 56,303 tons per unit, the average being 29,569 tons.

Traveling- and Chain-Grate-Stoker-Fired Units

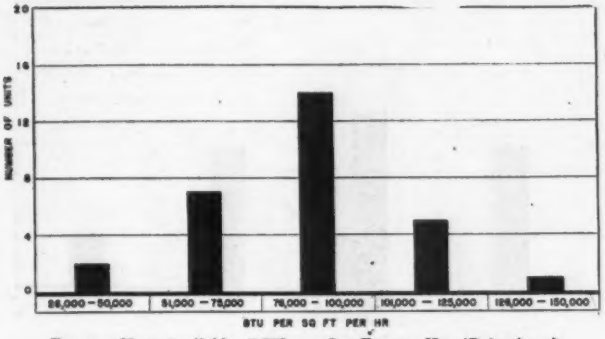
There are two units in this category, one a traveling grate and the other a chain grate, both having forced draft and furnaces with water-cooled surfaces. The capacity of the former is 50,000 pounds of steam per hour and the latter 120,000 pounds of steam per hour. Steam conditions are 425 p.s.i.—600°F., and 500 p.s.i.—668°F. respectively. Furnace heat release values are 38,000 and 33,900 B.tu. per cubic foot and furnace heat available 48,500 and 100,000 B.t.u. per square foot. Minimum ash-softening temperatures are 2100 and 2150°F., and burning rates 32.2 and 39.6 pounds per square foot. Design boiler and furnace efficiencies are 76.4 and 81.6%. Heating value of coal is 13,540 and 11,500 B.t.u. per pound respectively. The estimated total annual coal consumption is 63,810 tons.

The Future Outlook for Fuels Affecting Design

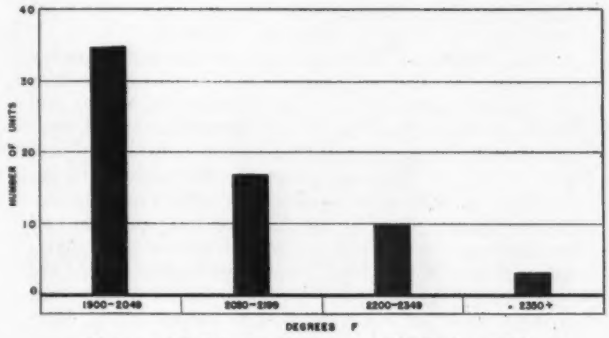
It is perhaps well to point out that bituminous coal will continue, as in the past, to be the basic fuel for the pulp and paper industry. The use of bituminous coal will naturally increase, as the following statement by Dr. A. C. Fieldner, of the U. S. Bureau of Mines conclusively indicates:

> . . . "the presently proved fuel reserves of the United States, solid, liquid, and gaseous, may be summarized as amounting to the energy equivalent of 2.6 trillion tons of bituminous coal having a heating value of 13,000 B.t.u. per pound. Coal and lignite comprise 98.8% of this energy reserve. *Fifty-five percent of this solid-fuel reserve consists of high-volatile bituminous coal,* 23% subbituminous coal, 19% lignite, 2.5% low-volatile bituminous coal, and 0.5% anthracite." *(9).*

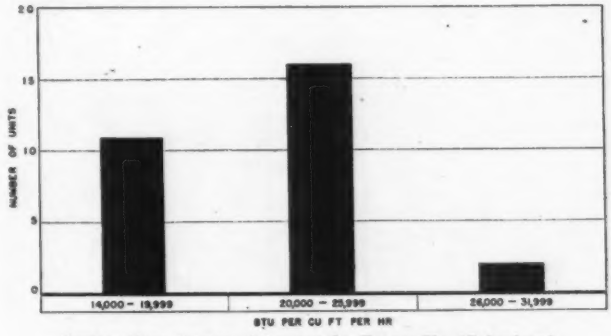
E. G. Bailey (Vice President, The Babcock & Wilcox Co.) once said: "This basic problem of the coal industry and of the railroads that serve it is to take from the ground heat units latent in their coal and deliver them into the steam pipe as simply and cheaply as possible" *(10).* This is an excellent formula to keep in mind and, strangely, it admits no qualifications as to physical and chemical properties. In a given instance this goal might be achieved through the use of either a high, low, or medium



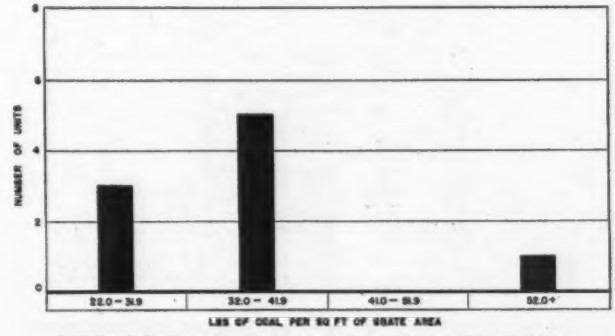
Furnace Heat Available, BTU per Sq. Ft. per Hr. (Pulverizers)



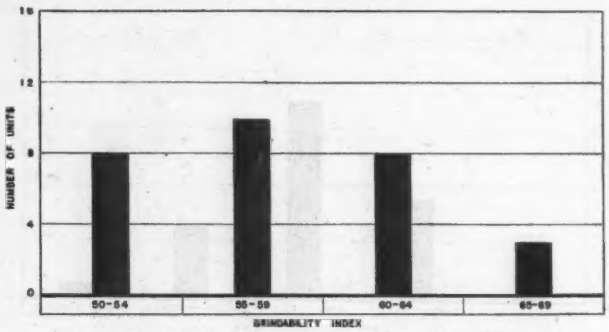
Minimum Ash-Softening Temperature Distribution (°F.)



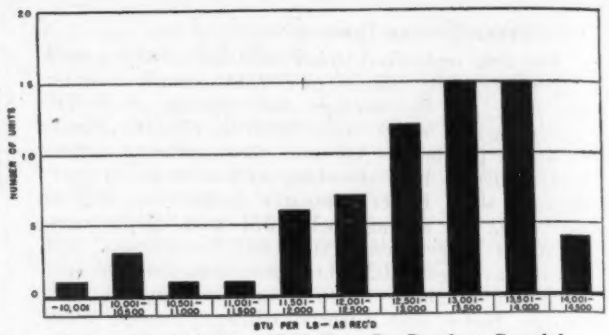
Furnace Heat Release—B.t.u. per Cu. Ft. per Hr. (Pulverizers)



Pounds of Coal per Sq. Ft. of Grate Area (Under Feed Stokers)



Minimum Grindability Index Distribution (Hardgrove) Pulverizers



Minimum Heating Value of Fuel, B.t.u. Per Pound—as Recorded

quality coal. If a coal of low quality did the job it would almost be a certainty that good conservative design of the combustion equipment played an important part, for otherwise the equipment would have undoubtedly barred the use of such coal.

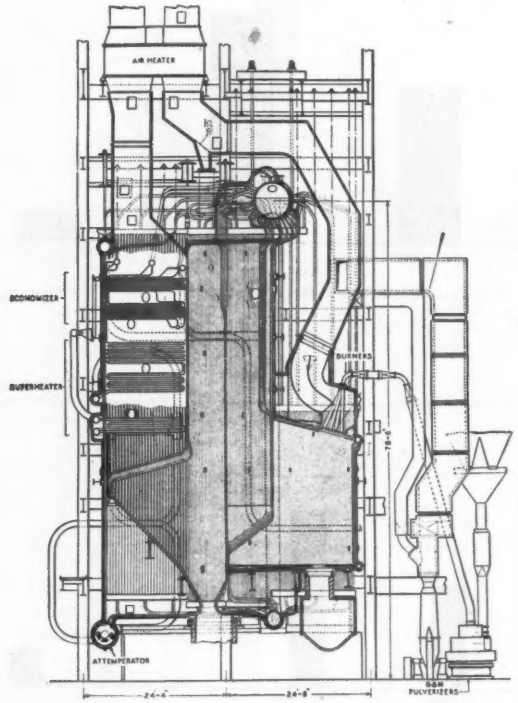
The modern boiler unit is an automatic energy converter, a mass production unit in which the flow of fuel and water into it and the flow of steam and waste products out of it are streamlined and synchronized. Manual operating labor is eliminated and the process is continuous. If the complete unit, including its conveying systems, is conservatively designed, it will stay on the line for long periods and not be sensitive to changes in coal quality and physical characteristics within the design limits. There are good examples of modern boiler units which can change with no drop in steam output from low-volatile to high-volatile coals and vice-versa, with wide variations in ash content, ash fusion and grindability, and then (to the coal man's chagrin) burn some oil or gas with or without these coals.

The modern unit must be looked upon in entirely new perspective from the old-fashioned boiler. The latter, whether hand-fired or not, required much more manual labor and attention to operate and maintain. Changes in characteristics and quality of coal not only brought loud complaints from the coal and ash handlers and firemen, but the unit usually had so little flexibility that its capacity and efficiency were seriously affected.

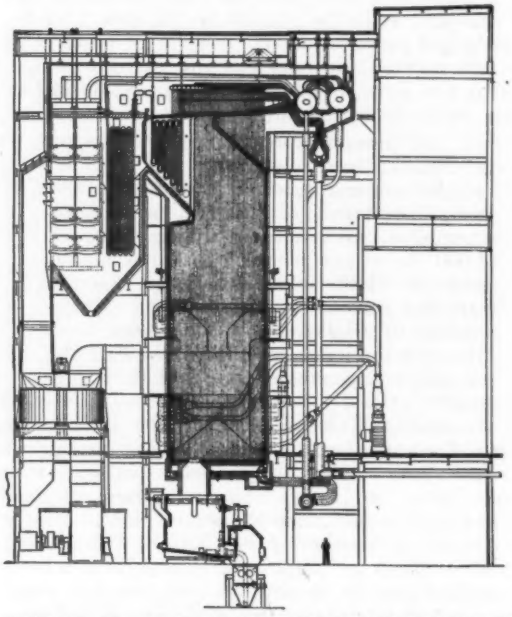
Coal Quality

Some consumers today ask these questions: When will steam coals get back to prewar quality? Are most of the coal operators putting in cleaning plants? These are perfectly fair questions and deserve fair and frank answers.

These people understand why quality went down during the fuel emergency (which by the way still exists) because of the opening up of marginal mines, and to a lesser degree the overtaxing of production facilities in some of the regular mines. In the main, wars are fought on marginal coals. In other words, these coals represent the difference between normal and wartime economy. They serve a most vital purpose during fuel emergencies in taking care of 25 to 30% of the demand, but naturally have a very disturbing effect on the coal distribution pattern and consumers' plant operation. These marginal coals will gradually slip out of the picture as new mining



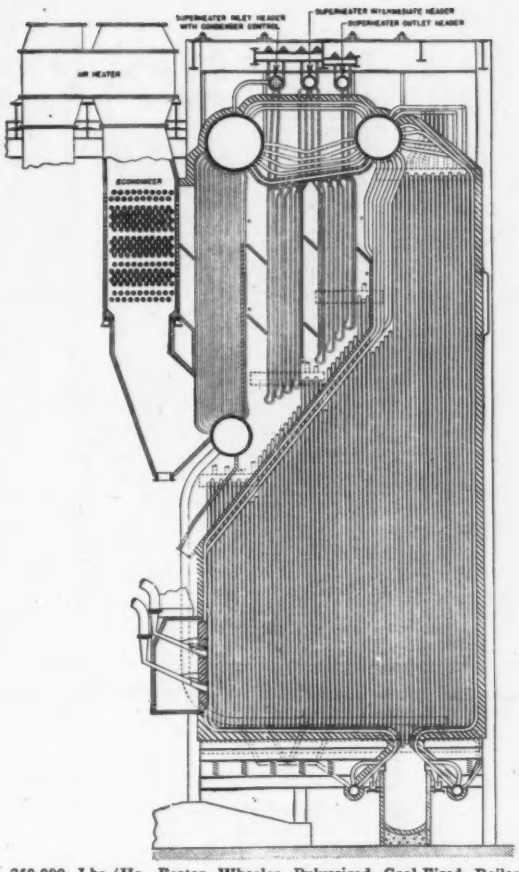
850,000 Lbs./Hr. B & W Open-Pass Pulverized Coal-Fired Boiler Unit 1075 p.s.i.—900° F.



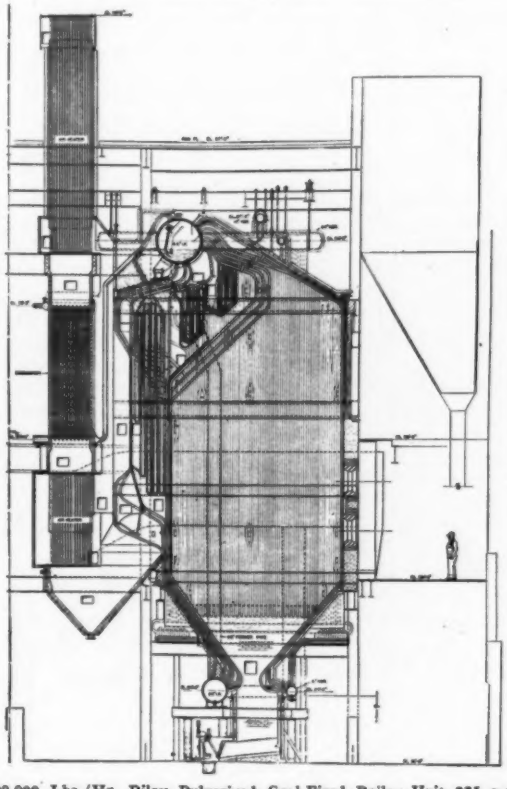
850,000 Lbs./Hr. Combustion Engineering Pulverized Coal-Fired Boiler Unit 1500 p.s.i.—1050° F.

equipment replaces worn-out facilities in the regular established mines, enabling the latter to increase mining capacity. Presently the serious car shortage and heavy export demand are complicating the situation. Some of the highest quality coal reserves were depleted during the war, and increased production from reserves of lower quality will be necessary. To meet rising production costs, there will be a great increase in the tonnage of coals mechanically mined. The number of cleaning plants will increase in fields where lower quality reserves are mined and where mechanized mining under bad roof and floor conditions materially increases the amount of impurities in the coal delivered to the tipple. Cleaning plants are a necessary adjunct to mechanized mining where bad roof or floor conditions exist, or if the coal seam itself is high in impurities.

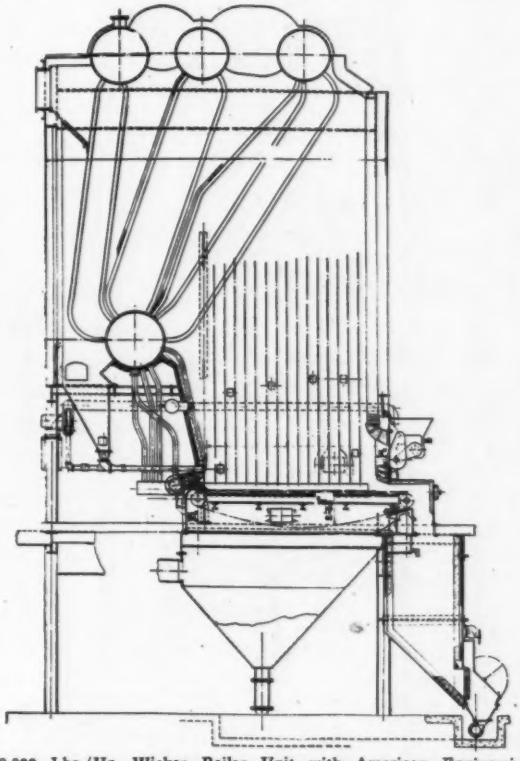
Mechanized long before the war, the Fairmont field, which is well known to the author, is an interesting exception. Here is a 7- or 8-foot seam of solid clean coal with only two partings of bone coal near the middle, each about ¼ inch thick, and this is combustible material. The roof is draw slate and stable if protected from air and moisture. The floor is rock, with a hard, bony crust which gives excellent separation from the coal. The cut is made at the top of the seam, rather than the bottom, leaving a few inches of head coal to protect the draw slate roof. When the coal is shot down it breaks clean from the floor and is picked up by loading machines and discharged into mine cars. As a result steam slack sizes from the deep mines throughout this field will normally have an ash content between 8 and 10% with the average not above 9%. The run-of-mine average will be 1 or 2% lower. In the case of this field, under present conditions, mechanical cleaning of steam coals is unnecessary and uneconomic.



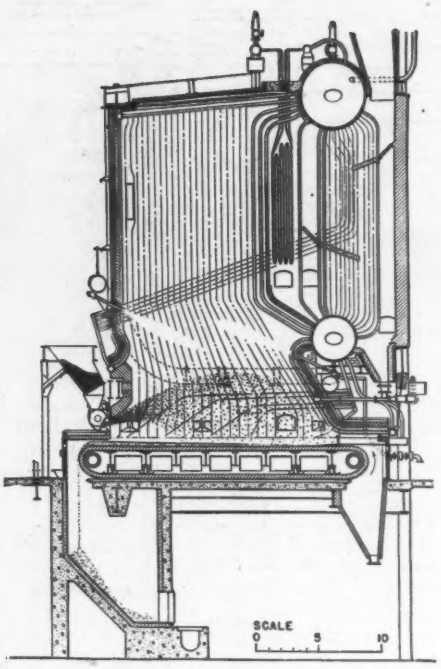
250,000 Lbs./Hr. Foster Wheeler Pulverized Coal-Fired Boiler Unit 1000 p.s.i.—825° F.



300,000 Lbs./Hr. Riley Pulverized Coal-Fired Boiler Unit 925 p.s.i. —900° F.



60,000 Lbs./Hr. Wickes Boiler Unit with American Engineering Continuous Ash Discharge Spreader Stoker 200 p.s.i.—Saturated



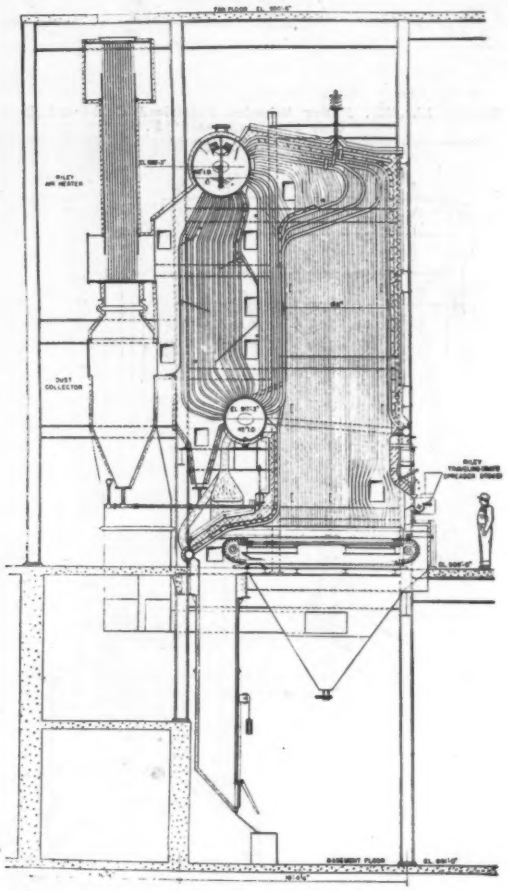
150,000 Lbs./Hr. Combustion Engineering VU Boiler Unit with CE Continuous Ash Discharge Spreader Stoker 500 p.s.i.—750° F.

Coal cleaning and drying is an expensive manufacturing process, especially for the small steam sizes, involving both capital and operating charges varying from 25 to 45 cents per ton. This cost must be passed on to the consumer just as are manufacturing costs in the paper and other industries. Consumers with modern fuel-burning equipment of conservative design are in an excellent position to save this cost and should continue to burn raw coal (unwashed) until a point is reached where through sound accounting methods, it can be proved mechanically cleaned coal with its additional cost will reduce the cost of steam generation.

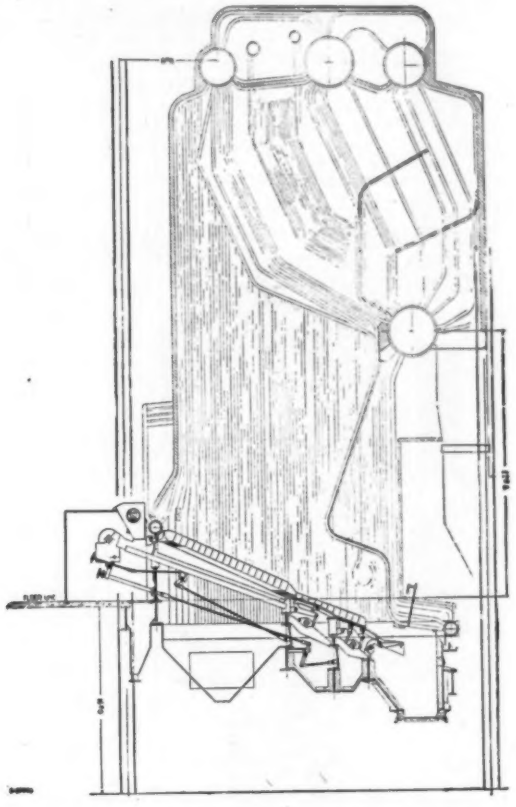
To answer more specifically the question, when will steam coals get back to prewar quality? As postwar conditions become more stabilized coal quality will improve materially over average wartime quality. However, because of conditions mentioned earlier, the author does not expect the quality of raw coal to average quite as high as prewar. On the other hand, an increasing tonnage of high-quality coal will be available from cleaning plants.

Regarding the question of when to clean or not to clean coal, it may be helpful to point out the following. It is generally uneconomical both to the producer and consumer to remove from steam coals a small percentage of ash, say 2% as from 10 to 8%, whereas, it may be highly worth-while to remove 8% from a 16%-ash coal. This statement is of course over-simplified for the problem is complex, involving freight rates, moisture content and other variables.

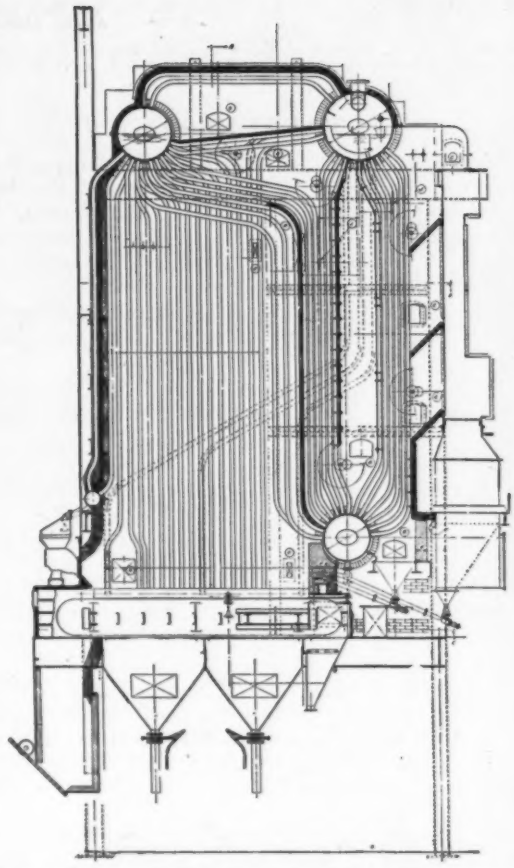
The author believes that from now on 8 to 10% ash will represent high quality steam coals in many areas, including the Eastern Seaboard.



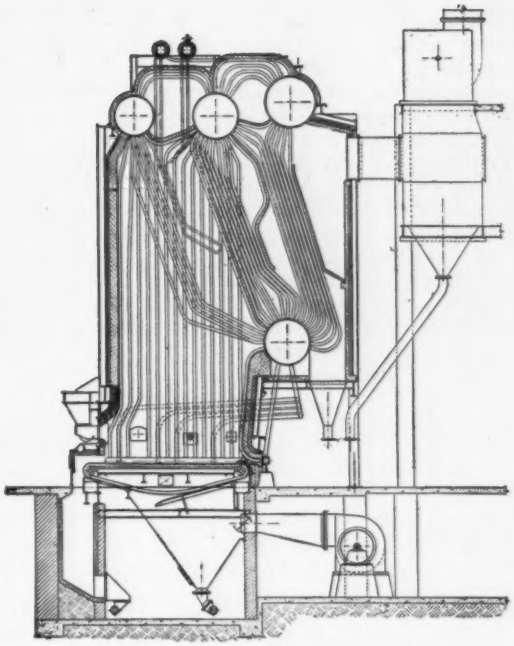
90,000 Lbs./Hr. Riley Boiler Unit with Riley Continuous Ash Discharge Spreader Stoker 250 p.s.i.—Saturated



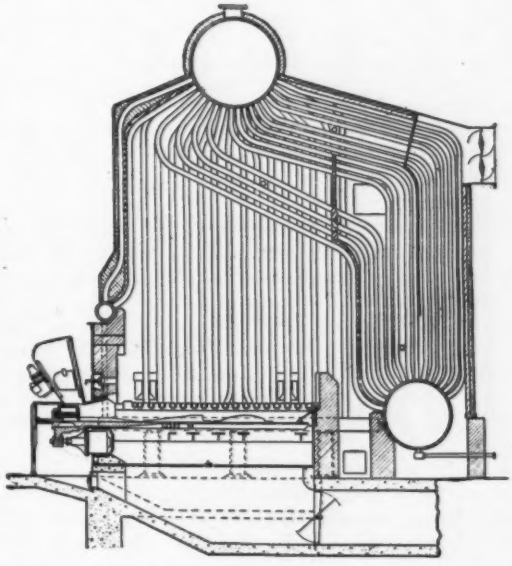
200,000 Lbs./Hr. B & W Stirling Boiler Unit with Westinghouse Underfeed Stoker (12 Retorts Wide) 925 p.s.i.—825° F.



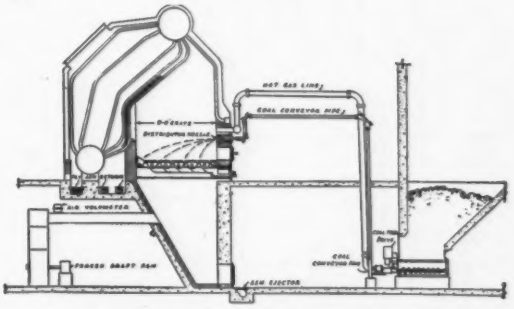
90,000 Lbs./Hr. Vogt Boiler Unit with Hoffman Firite Continuous Ash Discharge Spreader Stoker 250 p.s.i.—Saturated



75,000 Lbs./Hr. B & W Stirling Boiler Unit with Detroit Continuous Ash Discharge Spreader Stoker 150 p.s.i.—425° F.



31,500 Lbs./Hr. Combustion Engineering Package Boiler Unit with C-E Type E Single Retort Underfeed Stoker 250 p.s.i.—Saturated



25,000 Lbs./Hr. B & W Integral Furnace Boiler Unit with Iron Fireman Spreader Stoker 150 p.s.i.—Saturated

Some Comments on Coal Buying

Some comments on buying coal for the new conservatively designed plants may be in order.

In general the old plants, because of restricted design, are severely limited in coal selection and as a result of this buyers have little choice or opportunity to buy fuel on the heat-energy basis. Coal prices are basically related to production costs and not to heating values *per se*. In addition, like any other commodity coal prices are influenced by supply and demand. Coals which possess all of the physical and chemical properties for all-purpose uses such as metallurgical, chemical, gas, domestic and steam coals, are naturally in highest demand. Other coals deficient in one or more properties are restricted as to certain uses, but are excellent for steam-raising purposes. The majority of the coal reserves of the country fall into the last category, and from these come the most economical steam coals.

The pulp and paper industry is undergoing rapid expansion and in no industry is fuel a more important item. The industry is going to burn progressively more coal and the matter of steady year-round supply under both normal and abnormal conditions is becoming increasingly important. Never before has it been so important for buyers to carefully study the long-range fuel requirements of the mills and to figure out which coal fields can best and most economically meet these long-range requirements. Large mills should, by one of several means, attach themselves to large coal reserves through substantial

producers. Here the author is not necessarily referring to long-term contracts, although he believes there will be an increasing amount of this type of business, but rather to plans in which the buyer would work more closely with fewer sources and with some mutual assurances in regard to continuity.

It is not good to jump from pillar to post in buying and selling coal. It does not promote good will, and costs both the consumer and producer money in the long run. It is not good for mills which burn substantial tonnages year in and year out to figuratively worry about where their next "fuel meal" is coming from and by the same token it is not good for producers with large reserves to constantly worry about customer turnover.

There is a more sensible approach.

Conclusion

The author has presented the results of a special study made by his organization of the new boiler units purchased by the pulp and paper industry in the northeastern industrial area since the war. The study reveals the tremendous improvement made in design technique and a realistic approach to fuel burning.

It is significant that in the design of these modern boiler units, prime consideration was given the furnace and disposition of total heating surfaces to the extent that the furnace had ample volume and sufficient water cooling to insure furnace exit-gas temperatures would not exceed the fusion temperature of the ash on the oxidizing basis. Further, it is shown that pulverizers of ample capacity were used in all jobs and that stoker burning rates reflected good practice.

The critical design data from the Master Chart (Table I) should be of considerable value to the industry's engineers wherever new boiler installations are contemplated.

Typical modern steam-generators, ranging in capacity from 850,000 down to 25,000 pounds of steam per hour that are now being installed by various manufacturing and utility companies, are shown. Although they do not represent the full size range for each type of firing equipment, they should be of interest to pulp and paper industry executives and engineers. These units were all designed for the use of a wide range of coals and belong to the new era in power plant design.

Finally, the author strongly recommends that the design of new installations should be preceded by and based on a comprehensive study of the fuels which will logically be available for the life of the plant.

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TAPPI Notes

Henry K. Benson has retired from teaching and as head of the department of chemistry and chemical engineering of the University of Washington, in which he has served for 43 years, but will remain as research consultant, devoting most of his attention to pulp and paper problems.

Edmund Pearlman is now Secretary-Treasurer of the National Paper Corporation, 205 East 42nd Street, New York, N. Y.

William S. Lucey is now executive vice president of Rayonier, Inc., 122 East 42nd Street, New York, N. Y.

Robert E. Brown, formerly of the Grays Harbor Division, Rayonier, Inc., is now in the technical sales department, Rayonier, Inc., New York, N. Y.

Clark and Vicario Company have moved from the Graybar Building to 683 Third Avenue, New York 17, N. Y.

J. M. Kahn has succeeded O. A. De Celle as official representative of Infilco, Inc. in the Technical Association.

The Western New York Group of the TAPPI Empire State Section will meet at the Prospect House, Niagara Falls, N. Y. on Monday, January 12th at 6:30 p. m. J. M. McGovern of the Forest Products Laboratory, Madison, Wis. will discuss "Semichemical Pulps."

The TAPPI Pacific Section will meet in Camas, Wash., on Friday, January 16th. Wendell W. Moyer, research director, Crown Zellerbach Corporation will talk on "Opportunities in the Pulp and Paper Industry from the Standpoint of the Student."

The TAPPI Ohio Section will meet at the Manchester Hotel, Middletown, Ohio, on January 8, 1948. There will be a discussion of "Costs as a Tool of the Technical Man."

The 13th annual paper makers get-together sponsored jointly by the Kalamazoo Valley TAPPI and the Michigan Superintendents Division will be held at the Park-American Hotel, Kalamazoo, Mich. on Thursday evening, January 15th. Daniel T. Quirk, vice president and general manager of the Peninsular Paper Company and Mayor of Ypsilanti, Mich. will be the toastmaster. Le Moyne Snyder, Medico-Legal Director of the Michigan State Police, Lansing, Mich., will be the speaker and will talk on "Why Should I Worry About Murder?"

Arthur Pollak, formerly of the West Virginia Pulp and Paper Company, is now a consulting chemical engineer at 1718 Grand Ave., New York 53, N. Y.

Edwin P. Jones is now in charge of research and development in the Latex Section of the Bureau of Agricultural and Industrial Chemistry, Salinas, Calif.

H. L. Dunham has succeeded C. A. Frankenhoff as official representative of the Dicalite Company in the Technical Association.

Frank T. Peterson, formerly of the Victoria Paper Mills, is now engineer for the Dilts Machine Division of the Black-Clawson Company, Fulton, N. Y.

Richard J. Murtaugh, formerly of the Individual Drinking Cup Company, is now control chemist for the Dunn Sulphite Paper Company, Port Huron, Mich.